User Manual

Allen-Bradley

PanelView Plus 7 Standard Terminals

Catalog Numbers 2711P-T4W21D8S, 2711P-T4W21D8S-B, 2711P-T6C21D8S, 2711P-T6C21D8S-B, 2711P-T7C21D8S, 2711P-T7C21D8S-B, 2711P-T9W21D8S, 2711P-T9W21D8S-B, 2711P-T10C21D8S, 2711P-T10C21D8S-B, 2711P-T12W21D8S, 2711P-T12W21D8S-B, 2711P-T15C21D8S, 2711P-T15C21D8S-B

Important User Information

Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice.

If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

	WARNING: Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
	ATTENTION: Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard, and recognize the consequence.
IMPORTANT	Identifies information that is critical for successful application and understanding of the product.

Labels may also be on or inside the equipment to provide specific precautions.

	SHOCK HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that dangerous voltage may be present.
	BURN HAZARD: Labels may be on or inside the equipment, for example, a drive or motor, to alert people that surfaces may reach dangerous temperatures.
	ARC FLASH HAZARD: Labels may be on or inside the equipment, for example, a motor control center, to alert people to potential Arc Flash. Arc Flash will cause severe injury or death. Wear proper Personal Protective Equipment (PPE). Follow ALL Regulatory requirements for safe work practices and for Personal Protective Equipment (PPE).

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This manual contains new and updated information. Changes throughout this revision are marked by change bars, as shown to the right of this paragraph.

New and Updated Information

This table contains the changes made to this revision.

Topic	Page
Added information to this user manual for these new terminals: • 12.1-in. (2711P-T12W21D8S and 2711P-T12W21D8S-B) • 15-in. (2711P-T15C21D8S and 2711P-T15C21D8S-B)	–
Updated the list of terminal features.	11
Updated the hardware features table.	12
Updated the catalog number explanation.	16
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Updated the panel cutout dimensions.	24
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This manual describes how to install, configure, operate, and troubleshoot the PanelView™ Plus 7 Standard terminals. It does not provide procedures on how to create applications that run on the terminals or ladder logic that runs in the controller.

Other tasks to perform include:

- Create a human-machine interface (HMI) application for the terminal by using FactoryTalk® View Machine Edition (ME) software, version 7.0 or later.
- Create ladder logic for the controller by using the Studio 5000 Logix Designer™ application.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
PanelView Plus 7 Standard Terminals Technical Data, publication 2711P-TD008	Provides technical specifications, environmental specifications, and certifications for the PanelView Plus 7 Standard terminals.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation® industrial system.
Safety Guidelines for the Application, Installation, and Maintenance of Solid-State Controls, publication SGI-1.1	Provides general guidelines for the application, installation, and maintenance of solid-state control in the form of individual devices or packaged assemblies that use solid-state components.
Guidelines for Handling Lithium Batteries Technical Data, publication AG-5.4	Provides guidelines for storing, handling, installing, and disposing of lithium batteries.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

You can view or download publications at http://www.rockwellautomation.com/literature/. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Package Contents

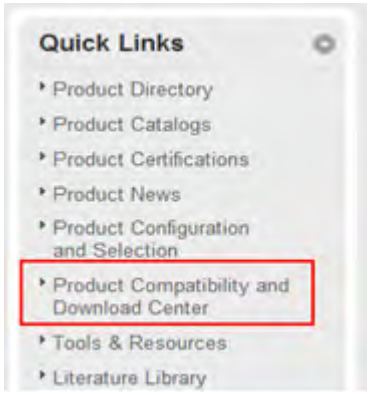
This product is shipped with the following items:

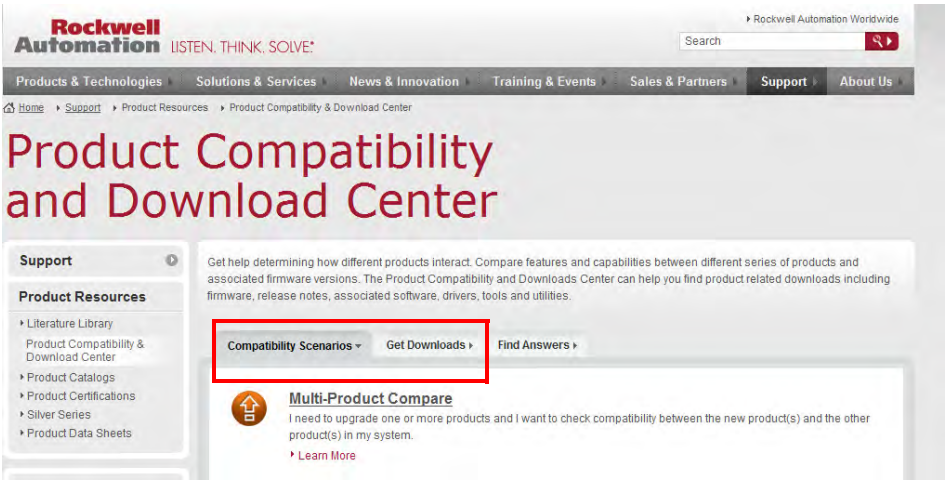
- PanelView Plus 7 Standard terminal with FactoryTalk View ME Station runtime software installed and activated
- Mounting levers for panel installation
- Removable power terminal block
- Secure Digital (SD) card cover
- Product information
- Cutout template
- China RoHS information
- Product Feature Notice

Product Release Notes

Product release notes are available online within the Product Compatibility and Download Center.

1. From the Quick Links list on http://www.ab.com, choose Product Compatibility and Download Center.

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2. From the Compatibility Scenarios tab or the Get Downloads tab, search for and choose your product.

3. Click the download icon to access product release notes.

Overview

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About the PanelView Plus 7 Standard Terminals

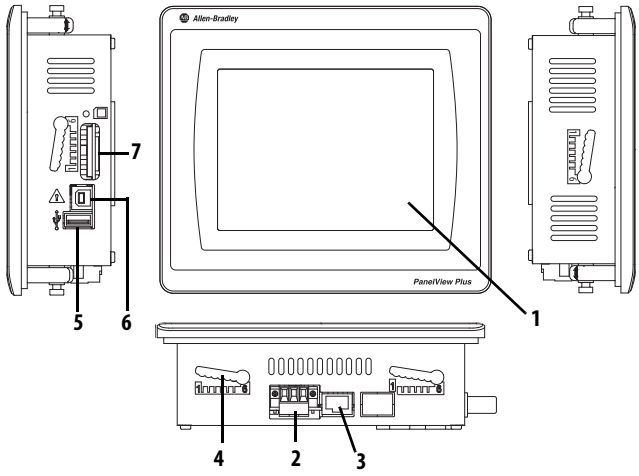
The PanelView Plus 7 Standard terminals are operator interface devices. They monitor and control devices that are attached to ControlLogix® 5570 and CompactLogix™ 5370 controllers on an EtherNet/IP network. Animated graphic and text displays provide operators a view into the operating state of a machine or process. Operators interact with the control system by using touch screen input.

The PanelView Plus 7 Standard terminals include these features:

- Terminal functionality permits connection to 1 controller, up to 25 screens, and up to 200 alarms.
- FactoryTalk View Machine Edition software provides a familiar environment for creating HMI applications.
- Windows CE operating system with desktop access for configuration and third-party applications.
- Ethernet communication that supports linear and star network topology.
- PDF viewer to access PDF files that are stored on the terminal.
- More screen options including 4-in., 6-in., 7-in., 9-in., 10-in., 12-in., and 15-in. terminals.
- Widescreen on three sizes, 4-in., 9-in., and 12-in. terminals.
- Greater screen resolution.
- Terminals are available with Allen-Bradley branding, or with no branding for customers that want to put their own branding around the terminal.
- Certifications including Class 1, Div 2 and ATEX Zones 2 and 22.

Hardware Features

The PanelView Plus 7 Standard terminal features fixed-hardware configurations in a range of display sizes with touch screen input.



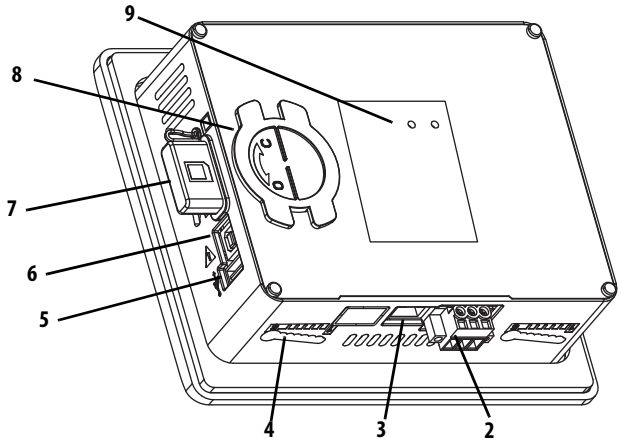


Table 1 - Hardware Features

Item	Feature	Description
1	Display/Touch screen	TFT color graphic display with a touch screen in a range of sizes: • 4.3-in. wide screen touch (WQVGA) • 5.7-in. touch (VGA) • 6.5-in. touch (VGA) • 9.0-in. wide screen touch (WVGA) • 10.4-in. touch (SVGA) • 12.1-in. wide screen with touch (WXGA) • 15.0-in. touch (XGA)
2	Power	24V DC nom (18…30V DC) nonisolated power input
3	Ethernet port	Single 10/100Base-T, Auto MDI/MDI-X, Ethernet port for controller communication.
4	Mounting slots	Mounting levers insert into the slots to mount device in a panel or enclosure. The number of slots varies by terminal size.
5	Universal serial bus (USB) host port	One USB 2.0 high-speed (type A) host port.
6	USB device port	One USB 2.0 high-speed (type B) device port for connecting a host computer.
7	SD card slot and protective cover	• One SD card slot supports catalog number 1784-SD*x* hot-swappable SD cards for external storage. • IMPORTANT: ATEX Installations – Protective cover secures the SD card in the slot, and is required for ATEX and hazardous location installations. – See Insert an SD Card on page 115 for hot-swapping, ATEX, and hazardous location warnings.
8	Battery	Battery cover provides access to the lithium battery for replacement.
9	Status indicators	Status indicators on the back of the terminal provide status and fault conditions.

Operator Control

All terminals have a color display with a touch screen for operator control. The resistive touch screen provides accurate, reliable, and durable touch control for industrial applications.

ATTENTION: The touch screen accepts input from a finger, stylus, or gloved hand for operation in dry or wet environments.

The plastic stylus must have a minimum tip radius of 1.3 mm (0.051 in.). Any other object or tool can damage the touch screen.

Do not conduct multiple operations simultaneously; it can result in unintended operation. Touch only one operating element on the touch screen with one finger, at one time.

TIP At runtime, a virtual keyboard or numeric keypad opens on terminal screens for data entry.

The touch screen supports touch gestures to interact with screen elements during runtime. Use only these touch gestures on the touch screen:

- **Tap** – Briefly touch the target on the terminal screen with your fingertip.
- **Double-tap** – Touch the target on the terminal screen twice quickly with your fingertip.
- **Drag** – Touch the target on the terminal screen and move your fingertip across the screen.
- **Long press** – Touch and hold the target on the terminal screen for several seconds.

For a list of actions you can perform by using touch gestures, see the FactoryTalk View ME help.

Software Support

IMPORTANT It is the responsibility of the customer to be sure that any third-party software, updates, patches, or firmware that is installed is free of malicious bugs, spyware, and so on.

Table 2 - PanelView Plus 7 Standard Software Support

Software	Description	Version
FactoryTalk View ME Station	Runtime environment of terminal: • Runs FactoryTalk View ME applications. • Provides options to view and configure terminal settings. Machine Edition Station is preloaded on each terminal and does not require activation.	7.0 or later
FactoryTalk View Studio for Machine Edition	Software for developing the HMI applications that run on terminal. This software does not run on the terminal. The HMI applications created in this software are loaded onto the terminal.	7.0 or later
FactoryTalk ViewPoint	A web server application that lets remote users access and control the HMI application that runs on a terminal by using an Internet browser. A single license is embedded with each terminal that supports a single client connection to a terminal.	1.2 or later

PanelView Plus 7 Standard Applications

PanelView Plus 7 Standard Machine Edition applications are restricted to these applications:

- Maximum of 25 screens.
- Maximum of 200 alarm messages.
- One connection or shortcut to a single controller by using either RSLinx Enterprise or KEPServer Enterprise software.
- Only Ethernet communication is supported.

  If using RSLinx Enterprise software, Ethernet drivers are supported.

Windows CE Operating System

The terminals run the Windows CE operating system. These devices run HMI applications and offer a desktop with these capabilities:

- File transfer protocol (FTP) server
- Virtual network computing (VNC) client and server
- ActiveX controls – Refer to View FactoryTalk View ME Station Information on page 69 to view a list of ActiveX controls installed on terminal.

  TIP For a complete list of ActiveX controls, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'ActiveX Support for PanelView Plus Terminals'.

- PDF reader
- Third-party device support

Open versus Closed System

You can configure a terminal to run an open or closed desktop environment:

- An open system launches the Windows desktop on startup.
- A closed system launches a FactoryTalk View ME application or FactoryTalk View ME Station on startup. Desktop access is restricted.

All terminals are shipped as closed systems.

Desktop Access

You can allow or restrict access to the Windows desktop on the terminal. From the desktop, you can perform system and control panel operations or run third-party applications. You can even allow access temporarily to perform specific tasks, then disable desktop access to prevent unauthorized changes.

TIP All terminals are shipped with desktop access disabled.

Refer to Desktop Access on page 44 for details on how to modify desktop access.

Start-up Options

The terminal can perform one of three actions at startup:

- Launch a FactoryTalk View ME HMI application.
- Launch FactoryTalk View ME Station in Configuration mode. This mode lets you configure terminal settings and start-up options, load applications to run, and enable or disable desktop access.
- Launch the Windows desktop.

The factory default state and start-up option after a firmware upgrade is to launch the terminal in Configuration mode. Refer to Configure Start-up Options on page 49 for details on how to change the start-up option.

EtherNet/IP Communication

PanelView Plus 7 Standard terminals communicate with ControlLogix 5570 and CompactLogix 5370 controllers over an EtherNet/IP connection.

Typical Configuration

Traditional star and linear network topologies are supported. See these topics for examples:

- Linear Network Topology on page 35
- Star Network Topology on page 36

Catalog Number Explanation

See the table for an explanation of the terminal catalog number.

Bulletin	Input Type	Display Size	Display Type	Network	Power	Operating System	Model	-	Option
2711P-	**T** = Touch	**4** = 4.3-in.	**C** = Color	**21** = Single Ethernet port	**D** = DC	**8** = Windows CE	**S** = Standard(1)	-	**B**= No brand label
		6 = 5.7-in.	**W** = Wide aspect-ratio color						
		7 = 6.5-in.							
		9 = 9.0-in.							
		10 = 10.4-in.							
		12 = 12.1-in.							
		15 = 15.0-in.							

(1) The standard models support the Windows CE version 6.0 operating system with an FTP server, VNC client server, ActiveX controls, and PDF reader.

Product Selections

Table 3 provides a description of the product selections.

Table 3 - PanelView Plus 7 Standard Terminals Product Selections

Cat. No.(1)	Display				Input Power	Number of Ethernet Ports	Memory	
Touch Screen	Size	Type	Aspect Ratio	Pixels (W x H)			RAM	User(2)
2711P-T4W21D8S	4.3-in.	WQVGA TFT color	16:9	480 x 272	DC	1	512 MB	250 MB
2711P-T6C21D8S	5.7-in.	VGA TFT color	4:3	640 x 480	DC	1	512 MB	250 MB
2711P-T7C21D8S	6.5-in.	VGA TFT color	4:3	640 x 480	DC	1	512 MB	250 MB
2711P-T9W21D8S	9.0-in.	WVGA TFT color	5:3	800 x 480	DC	1	512 MB	250 MB
2711P-T10C21D8S	10.4-in.	SVGA TFT color	4:3	800 x 600	DC	1	512 MB	250 MB
2711P-T12W21D8S	12.1-in.	WXGA TFT color	16:10	1280 x 800	DC	1	512 MB	250 MB
2711P-T15C21D8S	15.0-in.	XGA TFT color	4:3	1024 x 768	DC	1	512 MB	250 MB

(1) Add B to the end of a catalog number to order a terminal without the Allen-Bradley logo and product identification; for example, 2711P-T9W21D8S-B.
(2) Memory available for user to store applications.

Accessories

Table 4 through Table 9 list accessories for the PanelView Plus 7 Standard terminals.

Table 4 - Protective Overlays

Cat. No.	Display Size	Touch Input	Quantity
2711P-RGT4S	4.3-in.	•	3
2711P-RGT6S	5.7-in.	•	3
2711P-RGT7SP	6.5-in.	•	3
2711P-RGT9SP	9.0-in.	•	3
2711P-RGT10SP	10.4-in.	•	3
2711P-RGT12SP	12.1-in.	•	3
2711P-RGT15SP	15-in.	•	3

Table 5 - Power Supplies and Power Terminal Blocks

Cat. No.	Description	Quantity
1606-XLP95E	DIN-rail power supply, 24…28V DC output voltage, 95 W	1
1606-XLP100E	DIN-rail power supply, 24…28V DC output voltage, 100 W	1
2711P-RSACDIN	DIN-rail power supply, AC-to-DC, 85…265V AC, 47…63 Hz	1
2711P-RTBDSP	3-pin DC power terminal block (black with white labels for +, –, and GND)	10

Table 6 - Mounting Hardware

Cat. No.	Description	Quantity
2711P-RMCS(1)	Mounting levers (gray)	12

(1) Catalog number 2711P-RMCS mounting levers are for use only with PanelView Plus 7 Standard terminals. Do not use these mounting levers with any other PanelView Plus terminals. Do not use black mounting levers; they are not compatible with PanelView Plus 7 Standard terminals.

Table 7 - SD cards (1)

Cat. No.	Description	Quantity
1784-SD1	1-GB SD card	1
1784-SD2	2-GB SD card	1
2711C-RCSD	USB to SD adapter for SD card	1
2711P-RCKS	SD cover replacement	3

(1) To reduce the chance of corruption when using SD cards or USB drives with the terminal, Rockwell Automation recommends that you use SD card catalog numbers 1784-SD1 or 1784-SD2.

Table 8 - USB Programming Cable

Cat. No.	Description	Length
6189V-USBCBL2	Programming cable that connects the device port of the terminal to a USB host port of a computer	1.8 m (5.9 ft)

Table 9 - Battery Replacement

Cat. No.	Description	Quantity
2711P-RY2032	Lithium coin-cell battery, CR2032 equivalent	1
2711P-RYKS	Battery cover replacement	3

Ethernet Cables

See the Industrial Ethernet Media Brochure, publication 1585-BR001B, for recommended Ethernet cables and media solutions.

See the USB to Serial Adapter Quick Start Guide, publication GMSC10-QS003, for information on USB to serial port adapters.

Install the PanelView Plus 7 Standard Terminal

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ATTENTION: Do not use a PanelView Plus 7 Standard terminal for emergency stops or other controls critical to the safety of personnel or equipment. Use separate hard-wired operator interface devices that do not depend on solid-state electronics.

The equipment meets the requirements of the following standards and has the following ratings.

ATEX:

- EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010, and EN 60079-31:2009
- II 3 GD
- Ex ic nA IIC T4 Gc
- Ex tc IIIC T135 °C (275 °F) Dc IP66
- Tamb = 0 °C...+55 °C (32 °F...+131 °F)
- DEMKO 14 ATEX 1302X

ATTENTION: Environment and Enclosure

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC 60664-1), at altitudes up to 2000 m (6561 ft) without derating.

The terminals are intended for use with programmable logic controllers.

This equipment is considered Group 1, Class A industrial equipment according to IEC CISPR 11. Without appropriate precautions, there may be difficulties with electromagnetic compatibility in residential and other environments due to conducted or radiated disturbances.

Korean Radio Wave Suitability Registration - When so marked this equipment is registered for Electromagnetic Conformity Registration as business equipment (A), not home equipment. Sellers or users are required to take caution in this regard.

이 기기는 업무용 (A 급) 전자파적합기기로서 판 매자 또는 사용자는 이 점을 주의하시기 바라 며 , 가정외의 지역에서 사용하는 것을 목적으 로 합니다 .

This equipment is supplied as open-type equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. The terminals meet specified NEMA, UL Type, and IEC ratings only when mounted in a panel or enclosure with the equivalent rating. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for additional installation requirements
- NEMA 250 and IEC 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure

ATTENTION: Wiring and Safety Guidelines

Use publication NFPA 70E, Electrical Safety Requirements for Employee Workplaces, IEC 60364 Electrical Installations in Buildings, or other applicable wiring safety requirements for the country of installation when wiring the devices. In addition to the NFPA guidelines, here are some other guidelines to follow:

- Employ only qualified electricians to wire the device in accordance with local, state, and national codes.
- Connect the device and other similar electronic equipment to its own branch circuit.
- Protect the input power by a fuse or circuit breaker rated at no more than 15 A.
- Route incoming power to the device by a separate path from the communication lines.
- Cross power and communication lines at right angles if they must cross.
- Communication lines can be installed in the same conduit as low-level DC I/O lines (less than 10V).
- Shield and ground cables appropriately to avoid electromagnetic interference (EMI). Grounding minimizes noise from EMI and is a safety measure in electrical installations.

For more information on grounding recommendations, refer to the National Electrical Code published by the National Fire Protection Association.

Hazardous Locations

The following information applies when operating this equipment in hazardous locations.

Products marked "CL I, DIV 2, GP A, B, C, D" are only suitable for use in Class I, Division 2, Groups A, B, C, and D hazardous locations and nonhazardous locations. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) can be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local authority having jurisdiction at the time of installation.

WARNING: EXPLOSION HAZARD

The following information applies when operating this equipment in hazardous locations.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C, and D or nonhazardous locations only.

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws sliding latches, threaded connectors, or other means provided with this product.
- When installed in a hazardous location do not open the enclosure, install or remove the memory card or battery, or connect or disconnect equipment unless the area is known to be nonhazardous.
- Substitution of components can impair suitability for Class I, Division 2.
- Peripheral equipment must be suitable for the location where it is used.
- All wiring must be in accordance with Class I, Division 2 wiring methods of Article 501 of the National Electrical Code and/or in accordance with Section 18-1J2 of the Canadian Electrical Code, and in accordance with the authority having jurisdiction.
- For ATEX Zone 2 applications, transient limiting shall be provided in the application that limits transient overvoltages to not more than 40% above the applied voltage.
- For ATEX applications, mount the display in environments where ultraviolet (UV) light cannot influence the nonmetallic parts.
- USB device port is for maintenance use only, it is not to be used during normal operation of the device.
- Install the display in the cutout of an enclosure by using the provided clamps to compress the bezel gasket to form a seal against the panel. The gasket seal is permanent for the installation.
- Use field/power wiring that is rated to a minimum of 90 °C (194 °F).
- Install the display in a location that minimizes the risk of impact from other objects. Do not drop, jolt, or impact the display during installation.
- For ATEX, mount the display through an enclosure wall with a minimum ingress protection rating of IP54 (Zone 2 applications) and IP6x (Zone 22 applications), and in an overall environment not exceeding Pollution Degree 2. (The display supports enclosure ratings up to IP66.) The enclosure must meet the requirements of EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010, and EN 60079-31:2009 as applicable.
- Do not use the USB ports in ATEX Zone 2 and Zone 22 applications unless the area is known to be nonhazardous.

Informations sur l'utilisation de cet équipement en environnements dangereux:

Les produits marqués “CL I, DIV 2, GP A, B, C, D” ne conviennent qu'à une utilisation en environnements de Classe I, Division 2, Groupes A, B, C, et D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

AVERTISSEMENT : RISQUE D’ EXPLOSION

Les informations suivantes s'appliquent lorsque cet équipement fonctionne dans des zones dangereuses.

Cet équipement est utilisable uniquement en Classe I, Division 2, Groupes A, B, C, et D ou en zones non dangereuses.

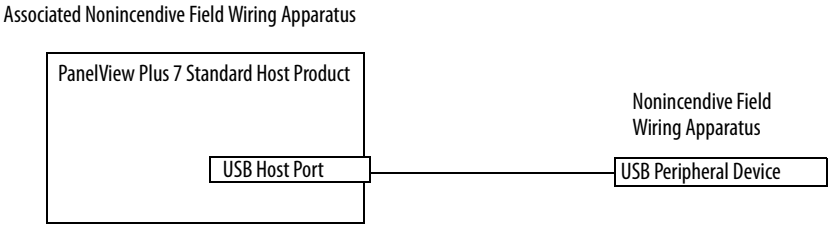
- Couper le courant ou s'assurer que la zone est classée non dangereuse avant de débrancher l'équipement.
- Couper le courant ou s'assurer que la zone est classée non dangereuse avant de débrancher les connexions de l'équipement. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.
- En cas d'installation dans un environnement dangereux ne pas ouvrir l'enceinte, installer ou retirer la carte mémoire ou la pile, connecter ou déconnecter d'équipement sauf si la zone est reconnue comme étant non dangereuse.
- La substitution de composants peut rendre cet équipement impropre à une utilisation en Classe I, Division 2.
- Les équipements périphériques doivent convenir à l'environnement dans lequel ils sont utilisés.
- Tout le câblage doit être conforme aux méthodes de câblage en Classe I, Division 2 de l'Article 501 du Code Electrique National des Etats-Unis et/ou la Section 18-1J2 du Code Electrique Canadien, et en conformité avec l'autorité compétente.
- Pour les applications en Zone 2 ATEX, une protection contre les transitoires sera fournie pour limiter les surtensions transitoires à 40 % au-dessus de la tension assignée.
- Pour les applications ATEX, installer l'afficheur dans des environnements où le rayonnement ultraviolet (UV) ne peut pas détériorer les parties non métalliques.
- Le port pour dispositif USB est destiné à la maintenance uniquement, il ne doit pas être utilisé pendant le fonctionnement normal du dispositif.
- Installer l'afficheur dans la découpe d'une enceinte en utilisant les fixations fournies pour comprimer le joint de l'encadrement et assurer l'étanchéité avec la paroi. L'étanchéité du joint doit être permanente pour l'installation.
- Utiliser un câblage de terrain/d'alimentation normalisé pour une température minimum de 90 °C (194 °F).
- Installer l'afficheur dans un emplacement qui minimise le risque de choc par d'autres objets. Pendant l'installation l'afficheur ne doit pas tomber, subir des secousses ou des chocs.
- Pour les applications ATEX, encastrer l'afficheur dans la paroi d'une enceinte ayant un indice de protection minimum IP54 (applications en Zone 2) et IP6x (applications en Zone 22) et un environnement général ne dépassant un degré de pollution 2. (L'afficheur supporte des classifications d'enceinte jusqu'à IP66). L'enceinte doit répondre aux exigences des nornes EN 60079-0:2009, EN 60079-11:2012, EN 60079-15:2010, et EN 60079-31:2009 le cas échéant.
- Ne pas utiliser les ports USB dans les applications ATEX en Zones 2 et 22, sauf si la zone est reconnue comme étant non dangereuse.

The terminals have a temperature code of T4 when operating in a 55 °C (131 °F) maximum ambient temperature. Do not install product in environments where atmospheric gases have ignition temperatures less than 135 °C (275 °F).

Required Circuit Port Parameters for USB Peripheral Devices

This product contains a USB host port that complies with hazardous location environments. Field-wiring compliance requirements are provided in compliance with the National Electrical Code, Article 500.

Figure 1 - PanelView Plus 7 Standard Terminal Control Drawing



PanelView Plus 7 Standard terminals provide one powered USB host port. Table 10 defines the circuit parameters of this port.

Table 10 - Circuit Parameters for USB Host Port

Parameter	Value	Parameter Definition	
$V_{oc\ (USB)}$	5.25V DC	Open circuit voltage of the host USB port. The maximum applied voltage rating, $V_{max\ (peripheral)}$, of the USB peripheral device is greater than or equal to $V_{oc\ (USB)}$.	$V_{max\ (peripheral)} \geq V_{oc\ (USB)}$ (as appropriate)
$I_{sc\ (USB)}$	1.68 A	Maximum output current of the host USB port. The maximum current, $I_{max\ (peripheral)}$, that the USB peripheral device can be subjected to is greater than or equal to $I_{sc\ (USB)}$.	$I_{max\ (peripheral)} \geq I_{sc\ (USB)}$
$C_{a\ (USB)}$	10 µF	This value is the maximum total capacitance that can be connected to the USB host port. The total capacitance of the USB peripheral device and its associated cable must not exceed the indicated value. The maximum total capacitance, $C_{i\ (peripheral)}$, and cable capacitance of the separate USB peripheral device is less than or equal to $C_{a\ (USB)}$.	$C_{i\ (peripheral)} + C_{cable(USB)} \leq C_{a\ (USB)}$
$L_{a\ (USB)}$	15 µH	This value is the maximum total inductance that can be connected to the USB host port. The total inductance of the USB peripheral device and its associated cable must not exceed the indicated value. The maximum total inductance, $L_{i\ (peripheral)}$, and cable inductance of the separate USB peripheral device is less than or equal to $L_{a\ (USB)}$.	$L_{i\ (peripheral)} + L_{cable} \leq L_{a\ (USB)}$

Application Information

Per the National Electrical Code (NEC), the circuit parameters of associated field-wiring apparatus for use in hazardous locations is coordinated with the host product so that their combination remains nonincendive. PanelView Plus 7 Standard terminals and the USB peripheral devices are treated in this manner.

Make sure that the USB peripheral device and its associated cabling have circuit parameters with the limits given in Table 10 for them to remain nonincendive when used with the PanelView Plus 7 Standard terminal USB host port.

If cable capacitance and inductance are not known, use the following values from ANSI/ISA-RP 12.06.01-2003:

C_{cable} = 197 pF/m (60 pF/ft)
L_{cable} = 0.7 µH/m (0.20 µH/ft)

Nonincendive field wiring must be wired and separated in accordance with 501.10(B)(3) of the National Electrical Code, ANSI/NFPA 70, or other local codes as applicable. This associated nonincendive field wiring apparatus has not been evaluated for use in combination with another associated nonincendive field wiring apparatus.

Considerations for Mounting

Consider the following items when mounting the terminal:

- Typically, the terminal mounts on the vertical surface of a panel or enclosure, at a 0° angle, just below eye level.
- Mount the terminal at a height suitable for most operators.
- Mount the terminal in an area that has good lighting.
- Do not mount the terminal where it is exposed to direct sunlight.

Clearances for Mounting

Plan for adequate space around the terminal and inside the enclosure for ventilation and cables. Consider heat that is produced by other devices in the enclosure. The ambient temperature around the terminal must be 0...55 °C (32...131 °F).

Table 11 - Minimum Required Clearances

Product Area	Min Clearance
Top	51 mm (2 in.)
Bottom	51 mm (2 in.)
Side	25 mm (1 in.) on side without an SD card 51 mm (2 in.) on side with SD card
Back	0 mm (0 in.)

Panel Guidelines

Mount the terminals in the door or wall of a NEMA, UL Type, or IP rated enclosure:

- The enclosure must be of type IP20 or greater protection.
- Panels must have a minimum thickness of 1.5...4.8 mm (0.060...0.188 in.).
- The material strength and stiffness of the panel must be sufficient to hold the terminal and maintain an appropriate seal against water and dust.
- The panel surface must be flat and free of imperfections to maintain an adequate seal, and NEMA, UL Type, and IP ratings.

Panel Cutout Dimensions

Use the template that is shipped with your terminal to mark the cutout dimensions.

Table 12 - Panel Cutout Dimensions - PanelView Plus 7 Standard Terminals

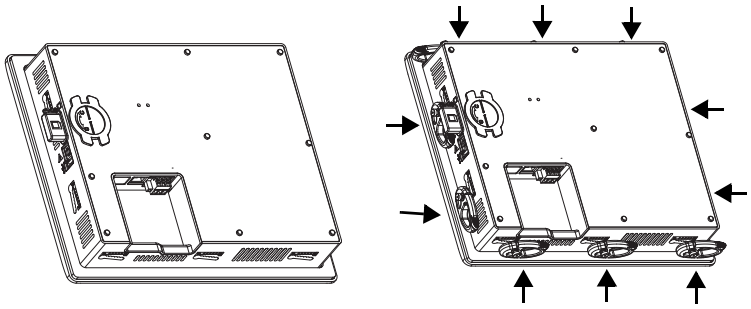
Terminal Size	Input Type	Height, mm (in.)	Width, mm (in.)
4.3-in.	Touch	92 (3.62)	117 (4.61)
5.7-in.	Touch	123 (4.84)	156 (6.14)
6.5-in.	Touch	142 (5.59)	184 (7.24)
9.0-in.	Touch	162 (6.38)	252 (9.92)
10.4-in.	Touch	224 (8.82)	269 (10.59)
12.1-in.	Touch	218 (8.58)	312 (12.28)
15.0-in.	Touch	290 (11.42)	353 (13.90)

Prepare for Panel Mounting

Before mounting a terminal in a panel, read this section and the entire installation procedure on page 28.

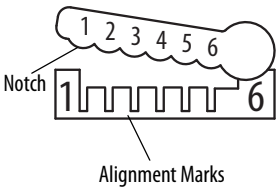
IMPORTANT Use catalog number 2711P-RMCS mounting levers (gray) for PanelView Plus 7 Standard terminals. Do not use these mounting levers with any other PanelView Plus terminals. Do not use black mounting levers; they are not compatible with PanelView Plus 7 Standard terminals.

Mounting levers insert into the slots around the bezel to secure the terminal in the panel. The number of mounting levers varies by terminal size.

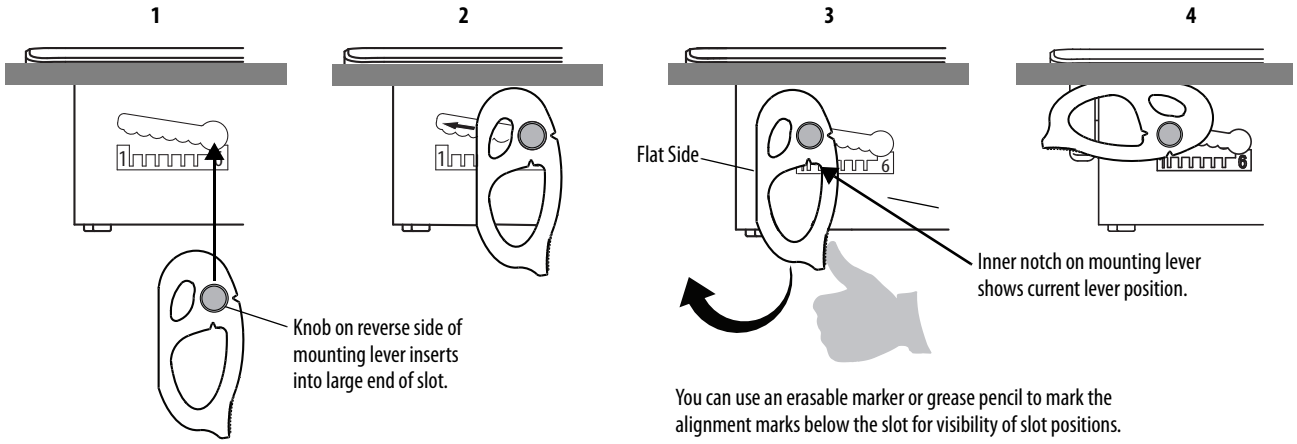


Each slot has six notches with alignment marks that are locking positions for a mounting lever. The thickness of the panel that you mount the terminal in determines the locking position that is required to maintain a NEMA, UL Type, and IP seal.

Table 13 - Mounting Lever Locking Positions

Mounting Slot	Mounting Lever Lock Position	Panel Thickness Range	Typical Gauge
	1	1.50…2.01 mm (0.060…0.079 in.)	16
	2	2.03…2.64 mm (0.08…0.104 in.)	14
	3	2.67…3.15 mm (0.105…0.124 in.)	12
	4	3.17…3.66 mm (0.125…0.144 in.)	10
	5	3.68…4.16 mm (0.145…0.164 in.)	8/9
	6	4.19…4.80 mm (0.165…0.188 in.)	7

Always orient a mounting lever vertically before inserting it into a slot. This method is the only way to slide the mounting lever knob within the slot for positioning. After sliding the mounting lever to a specific notch, rotate the mounting lever toward the panel to lock it in position. The flat side of the mounting lever must come into contact with the panel.


1
2
3
4
Flat Side
Knob on reverse side of mounting lever inserts into large end of slot.
Inner notch on mounting lever shows current lever position.
You can use an erasable marker or grease pencil to mark the alignment marks below the slot for visibility of slot positions.

Initially, you secure the terminal in the panel by sliding each mounting lever to a position that is one or two notches greater than the final lock position. For example, if the final lock position is 1, slide each mounting lever to position 2 or 3. Follow the sequence specific to the terminal size shown in Figure 3 on page 27.

TIP If the lock position is 6, slide the mounting lever to the large end of the slot or insertion hole.

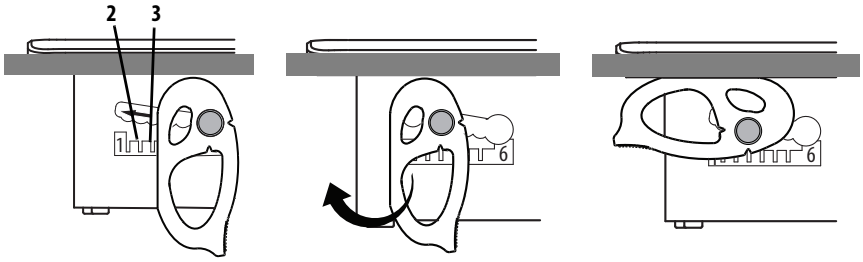


Figure 2 on page 26 shows the mounting lever orientation and locking sequence for a 5.7-in. and 10.4-in. terminal. See Figure 3 on page 27 for locking sequence and mounting lever orientations for all terminals.

Figure 2 - Mounting Levers Shown in Locked Position

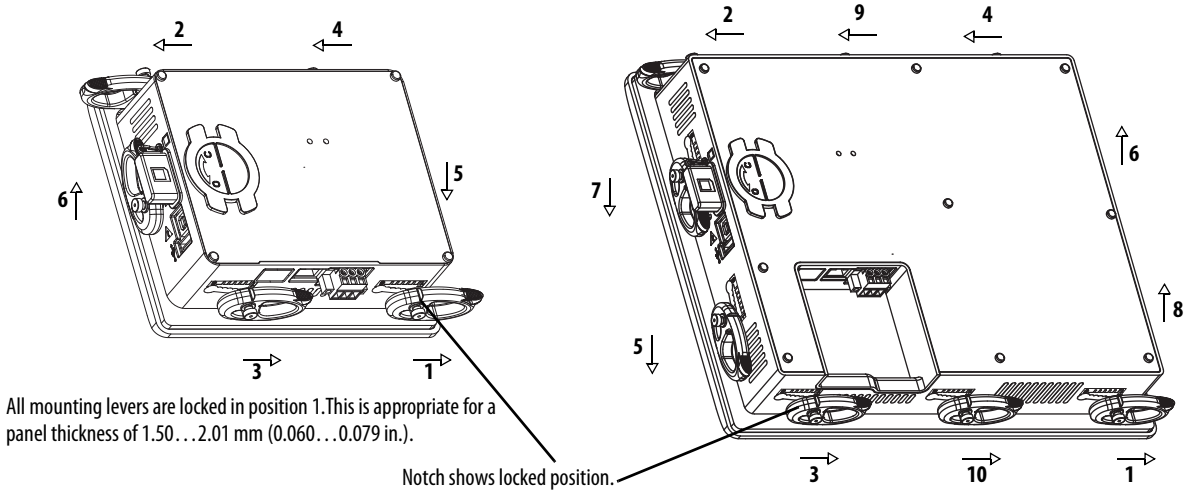
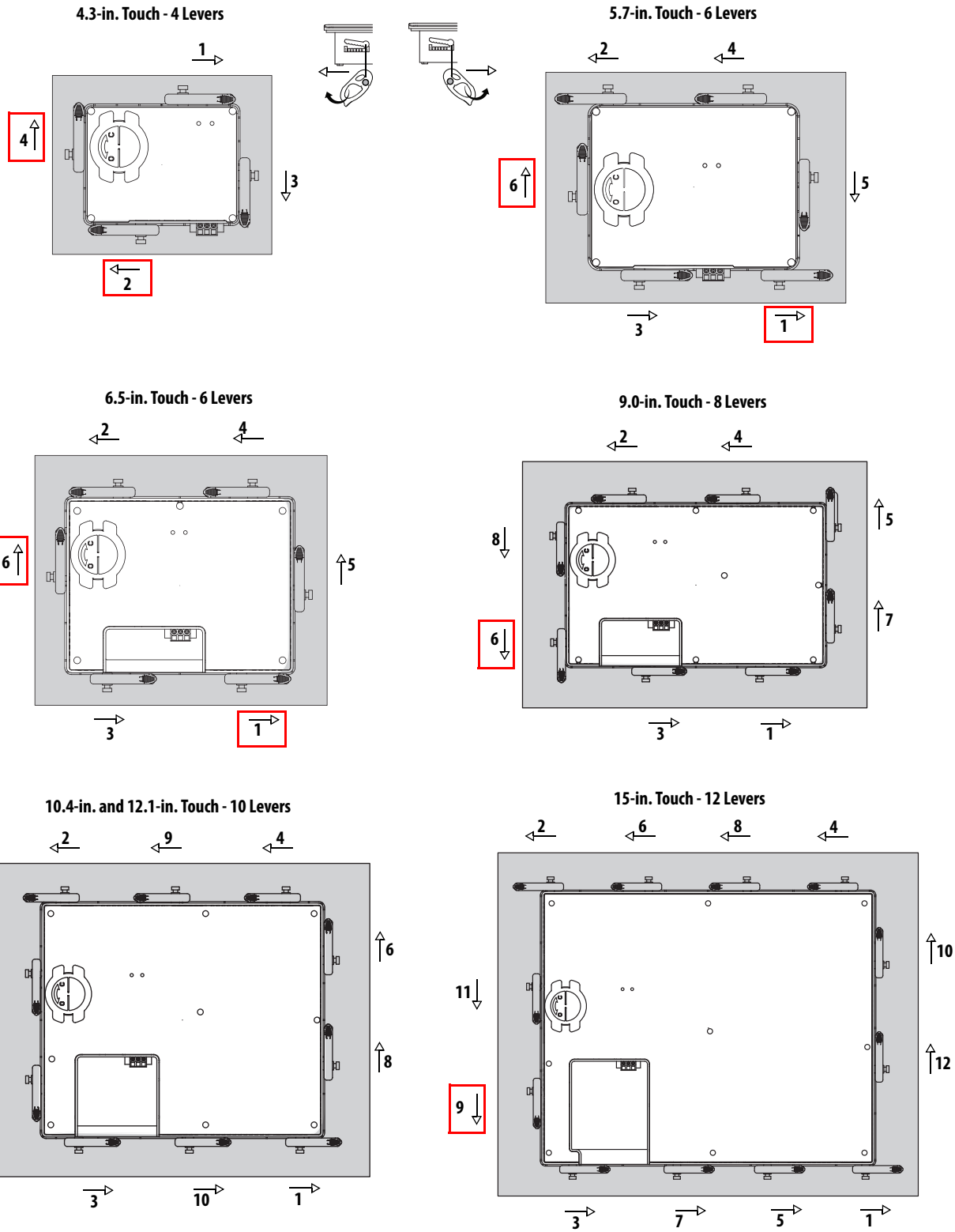


Figure 3 - Mounting Lever Orientation and Lock Sequence



The box indicates that the levers must be rotated in the orientation shown to avoid interference with ports and cables.

IMPORTANT: The mounting lever orientations shown are required to maintain NEMA, UL Type, and IP seals. If you require a NEMA, UL Type, or IP seal, do not use a mounting lever in a different orientation than shown.

Mount the Terminal in a Panel

The terminals were designed for single-person installation. No tools are required except for the tools needed to make the panel cutout.

Follows these steps to mount the terminal in a panel.

ATTENTION:

Disconnect all electrical power from the panel before making the panel cutout.

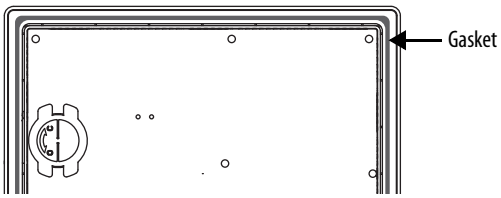
Make sure the area around the panel cutout is clear and that the panel is clean of any debris, oil, or other chemicals.

Make sure that metal cuttings do not enter any components that are already installed in the panel and that the edges of the cutout have no burrs or sharp edges.

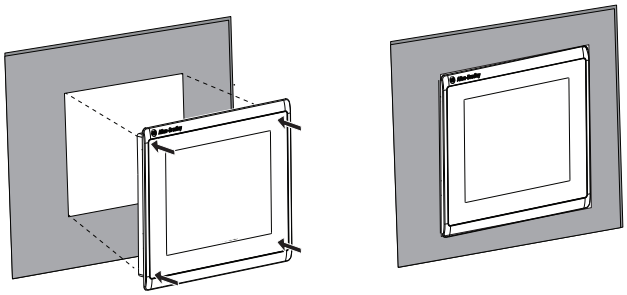
Failure to follow these warnings can result in personal injury or damage to panel components.

1. Use the cutout dimensions on page 24 to cut an opening in the panel.
2. Verify the sealing gasket is present on the terminal.

   This gasket forms a compression-type seal. Do not use sealing compounds.



3. Center the terminal in the panel cutout.



4. See Table 13 on page 25 to get the final lock position of the mounting levers for the panel thickness.
5. See Figure 3 on page 27 to determine the mounting lever orientations and lock sequence for your terminal size.

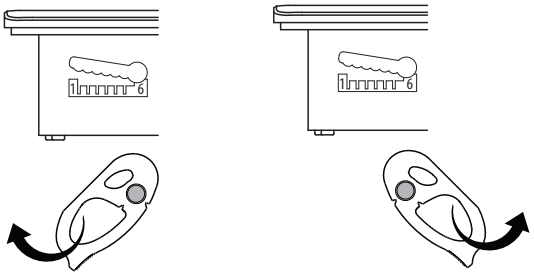
6. Secure the terminal in the panel.

TIP The mounting levers for PanelView Plus 7 Standard terminals are gray, similar to the color of the bezel (catalog number 2711P-RMCS).

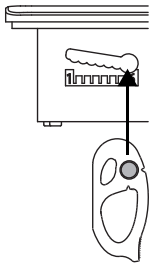
Do not use black mounting levers; they are not compatible with PanelView Plus 7 Standard terminals.

a. Verify the orientation of the mounting lever.

The direction that you rotate each mounting lever is different for each terminal size.

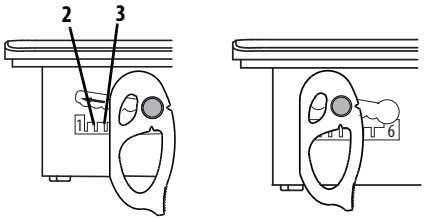


b. Hold the first mounting lever in the locking sequence vertical to the slot and insert its knob into the large end of the slot.



c. Slide the mounting lever to a notch that is one or two positions greater than the final locking position for your panel thickness.

If the final locking position is 1, slide the mounting lever to position 2 or 3.

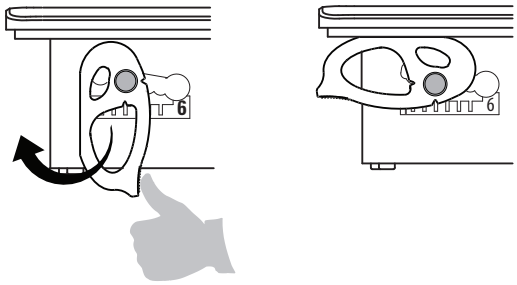


TIP Use an erasable marker or grease pencil to mark the alignment marks for visibility of the slot positions and to mark the final lock position.

d. Rotate the mounting lever until its flat side comes in contact with the panel.

IMPORTANT	Do not use tools or excessive force to rotate the mounting lever. The mounting levers are designed to be rotated and secured by hand.

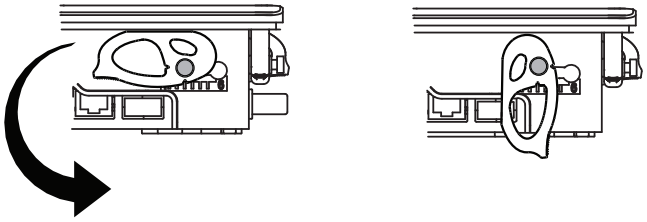
TIP	A broken mounting lever does not damage the terminal. The mounting levers are designed to break off the pin if they are over torqued. This breakage helps to prevent damage to the terminal bezel. If a pin is broken, turn the mounting lever around and use the other pin to continue the installation. See Figure 3 on page 27 for details and restrictions.



e. Repeat steps a through d for the remaining mounting levers.

7. Adjust each mounting lever to its final position by using the same locking sequence in Figure 3 on page 27.

   a. Unlock mounting lever one in the sequence by rotating it away from the bezel.



   b. With the mounting lever positioned vertically to the slot, slide the mounting lever to the final locking position in Table 13 on page 25.

   c. Carefully rotate the mounting lever back toward panel.

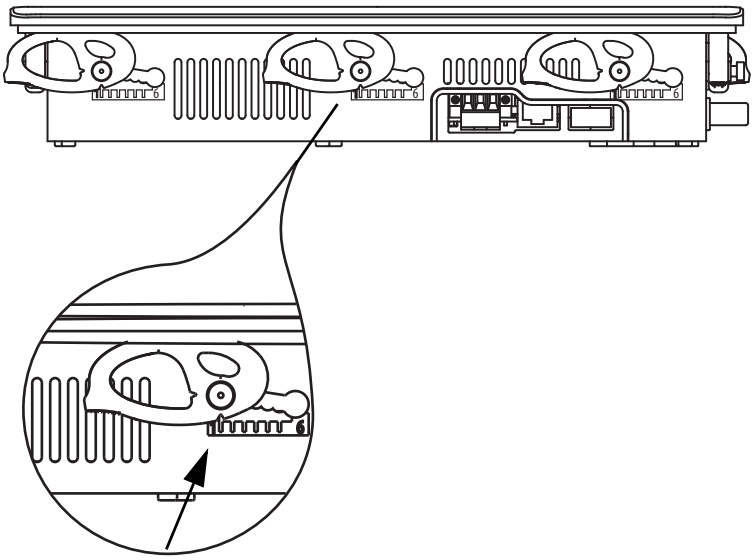
   d. Repeat steps a through c to lock the remaining mounting levers in their final position.

8. Inspect all mounting levers to make sure each is in the correct locked position.

ATTENTION: All mounting levers must be in the correct locked position and follow the correct lever installation sequence to provide an adequate gasket seal between the terminal and the panel. Rockwell Automation assumes no responsibility for water or chemical damage to the terminal or other equipment within the enclosure because of improper installation.

The notch on the outside of mounting lever shows its locked position.

This view shows that the mounting levers are locked in position 1.



Remove and Replace Power Terminal Block

The product has a three-pin terminal block for power connections. You can remove the terminal block for ease of installation, wiring, and maintenance.

WARNING: Explosion Hazard

If you connect or disconnect wiring while the power is on, an electrical arc can occur. This arc can cause an explosion in hazardous location installations. Make sure the power is off and the area is nonhazardous before proceeding.

Failure to turn power off can result in electrical shock or damage to the terminal.

Use a 0.6 x 3.5 mm flat blade screwdriver for terminal block wiring.

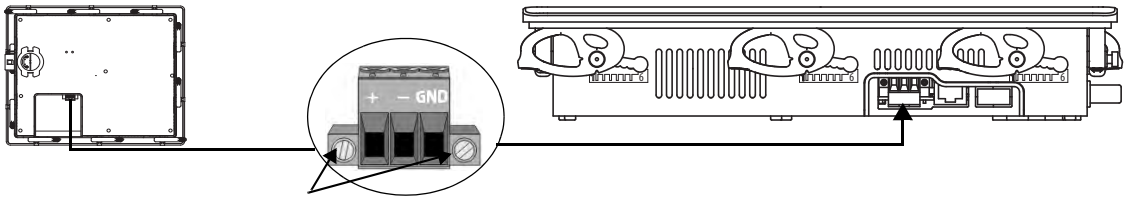
Table 14 - Wire Specifications for Power Input Terminal Block

Wire Type	Dual-wire Size(1)	Single-wire Size	Strip Length	Screw Torque
Stranded or solid Cu 90 °C (194 °F)	0.3…1.3 mm^2 22…16 AWG	0.3…2.1 mm^2 (22…14 AWG)	7 mm (0.28 in.)	0.56 N•m (5.0 lb•in)

(1) Two-wire max per terminal.

To remove the power terminal block, follow these steps.

1. Loosen the two screws that secure the terminal block.



2. Gently pull the terminal block away from the connector.

To install the power terminal block, follow these steps.

1. Press the terminal block onto the connector until seated.

ATTENTION: Do not use excessive force to press the DC terminal block into position. The DC terminal block is keyed to fit the DC connector. If the terminal block does not fit into the connector, verify that you have the correct DC terminal block. See Table 5 on page 17.

2. Tighten the two screws that secure the terminal block to the connector.

Connect Power

The terminals have a 24V DC non-isolated power supply at these power ratings:

- 24V DC nominal (18...30V DC)
- 35 W maximum (1.46A at 24V DC)

ATTENTION: The power supply is internally protected against reverse polarity. Connecting DC+ or DC- to the earth ground terminal can damage the terminal. Connecting AC power, or more than 30V DC, can also damage the terminal.

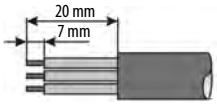
The terminals support operation from a safety extra-low voltage (SELV) or protective extra-low voltage (PELV) 24V DC power supply. Supported power supplies include catalog numbers 1606-XLP95E, 1606-XLP100E, and 2711P-RSACDIN.

ATTENTION: Use a SELV or PELV supply as required by local wiring codes for your installation. The SELV and PELV power sources provide protection so that under normal and single fault conditions, the voltage between conductors and earth ground does not exceed a safe value.

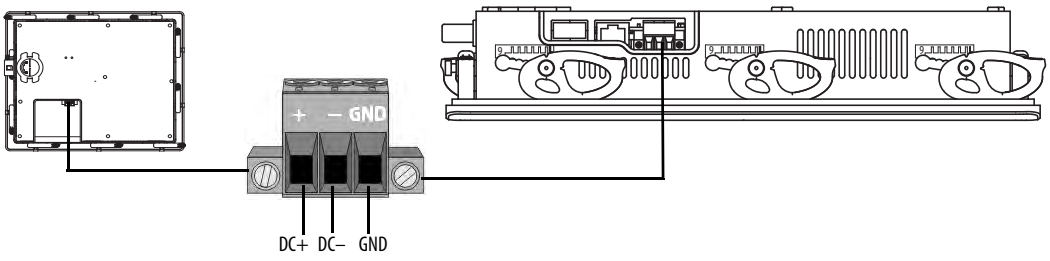
Use a DC power bus to power the terminal from the same power source as other equipment.

To connect the operator terminal to a DC power source, follow these steps.

1. Verify that the wiring is not connected to a power source.
2. Strip 7 mm (0.28 in.) of insulation from your power supply wires.



3. Secure the DC power wires to the marked terminals (+ and –) on the terminal block.



4. Secure the earth ground wire to the GND terminal on the terminal block.

   The GND terminal must be connected to a low-impedance earth ground.

ATTENTION: The earth ground connection to ground is mandatory. This connection is required for noise immunity, reliability, and Electromagnetic Compliance (EMC) with the European Union (EU) EMC Directive for CE-mark conformance. This connection is required for safety by Underwriters Laboratory (UL).

IMPORTANT Secure the power cable to prevent the following:

- Vibration at the connector
- Pulling when the panel door is opened and closed, or when personnel are working inside the panel

5. Apply power to the operator terminal.

Connect to a Network

The terminal is available with one Ethernet port for connecting to a controller on an EtherNet/IP network. These types of networks are supported:

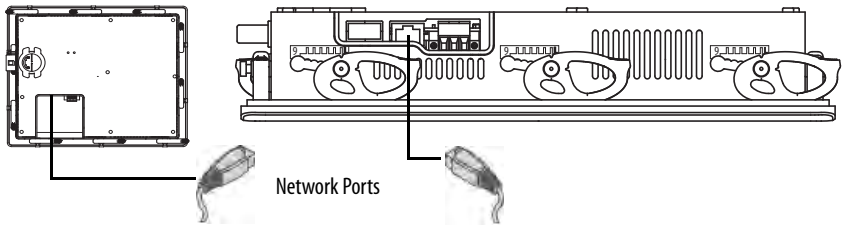
- Linear Network Topology on page 35
- Star Network Topology on page 36

Each of these EtherNet/IP network topologies supports applications that use Integrated Motion over an EtherNet/IP network, if necessary. See the EtherNet/IP Embedded Switch Technology Application Technique, publication ENET-AP005, for more information.

Ethernet Port

The Ethernet port has an RJ45, 10/100Base-T connector for network communication and supports MDI/MDI-X connections.

The terminal connects to an EtherNet/IP network by using a CAT5, CAT5E, or CAT6 twisted-pair, Ethernet cable with RJ45 connectors.



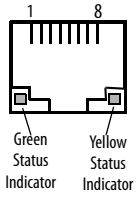
IMPORTANT To help prevent accidental disconnection of the Ethernet cable, follow these steps:

- Secure the Ethernet cable to minimize vibration at the connector, and reduce the chance that personnel working inside the panel can accidentally disconnect the cable.
- Do not install the Ethernet cable too tightly. Leave some slack in the cable to prevent pulling on the cable when the panel door is opened and closed.

The maximum cable length between the Ethernet ports and a 10/100Base-T port on an Ethernet hub (without repeaters or fiber) is 100 m (328 ft).

WARNING: Do not connect or disconnect any communication cable with power applied to this device or any device on the network. An electrical arc can cause an explosion in hazardous location installations. Make sure the power is off or the area is nonhazardous before proceeding.

Table 15 - Ethernet Connector Pinout

Connector	Pin	Pin Name
View of RJ45 Connector 	1	TD+
	2	TD-
	3	RD+
	4	Unused
	5	Unused
	6	RD-
	7	Unused
	8	Unused
	Shield connection	No direct connection (AC coupled to chassis GND)

The Ethernet port has two indicators that provide the status of activity.

Table 16 - Ethernet Status Indicators

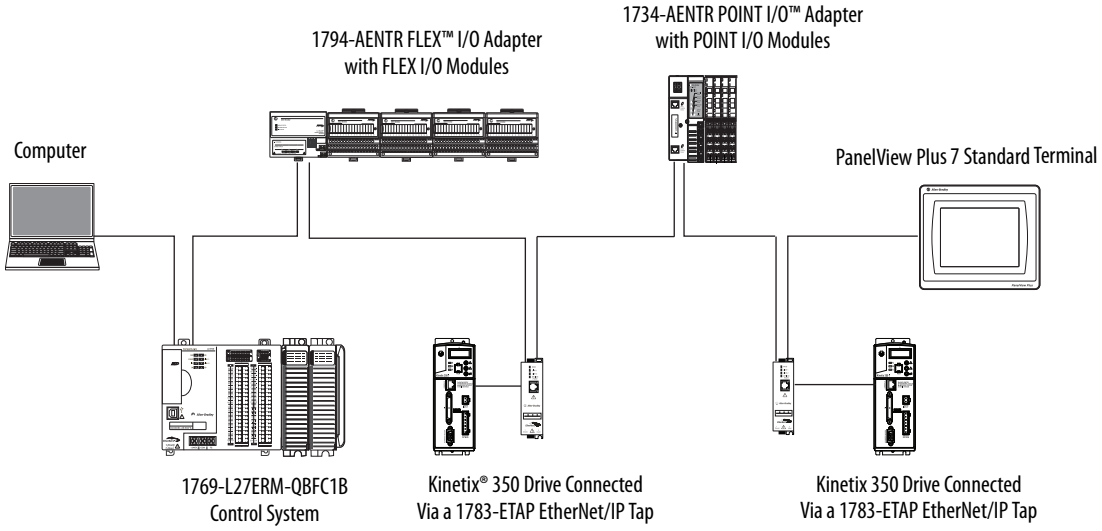
Indicator	Color	Description
Link integrity	Green	On, when a link is present.
Activity	Yellow	Blinks when activity is detected on Ethernet link.

Linear Network Topology

A linear network topology is a collection of devices that are daisy-chained together across an EtherNet/IP network. Devices capable of connecting to a linear network topology use embedded switch technology to eliminate the need for a separate switch, as required in Star network topologies.

TIP The PanelView Plus 7 Standard terminal with one Ethernet port can be attached only at the ends of the linear network.

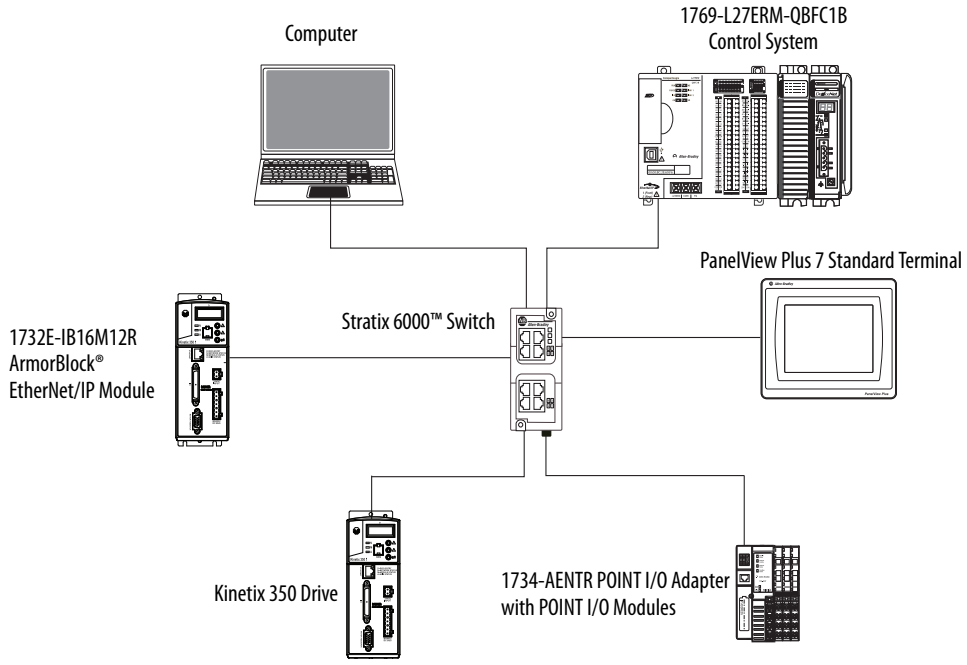
Figure 4 - PanelView Plus 7 Standard Terminal at the End of a Linear Network



Star Network Topology

A star network topology is a traditional EtherNet/IP network that has multiple devices that are connected to each other via an Ethernet switch.

Figure 5 - PanelView Plus 7 Standard Terminal Connected via a Stratix 6000 Switch



Initial Startup

The first time that you start the system, the terminal goes through its start-up sequence and launches FactoryTalk View ME Station in Configuration mode.

You can change the action that occurs at startup by pressing Terminal Settings, then tapping Startup Options. You can configure one of these options:

- Launch a FactoryTalk View ME HMI application.
- Launch FactoryTalk View ME Station in Configuration mode (default).
- Launch the Windows desktop.

TIP Terminals are initially shipped with desktop access disabled. You can configure your terminal to allow desktop access.

For more information on changing the start-up option and desktop access, see Chapter 3, Configure Terminal Settings.

Reset the Terminal

There are several ways to restart the terminal without having to disconnect and reapply power:

- From FactoryTalk View ME Station Configuration Mode, tap Reset.
- From the terminal desktop Start Menu, choose Programs>Restart System.
- To access Maintenance Mode, follow these steps.
  a. Plug in a USB keyboard.
  b. Press and hold the white box that appears in the bottom left corner when the terminal is booting up.

Refer to Maintenance Mode Operations on page 137 for details on how to restart the terminal from Maintenance Mode.

Notes:

Configure Terminal Settings

Topic	Page
FactoryTalk View ME Station	39
Terminal Settings	41
Soft Keyboard	42
Load and Run an Application	43
Desktop Access	44
Configure Start-up Options	49
Configure Controller Address	52
Configure Ethernet Settings	52
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Topic	Page
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Configure Diagnostics	64
Check Integrity of Application Files	65
View and Clear the System Event Log	66
Enable or Disable the Alarm Display	66
Display System Information	67
Time and Date Settings	70
Regional Settings	72

FactoryTalk View ME Station

FactoryTalk View ME Station is the runtime environment of the terminal. This environment lets you configure start-up options, load and run HMI applications, adjust terminal settings, access the Windows desktop, and perform other terminal operations.

When you reset the terminal, one of these actions occurs depending on the configured start-up option:

- FactoryTalk View ME Station launches in Configuration mode. This is the initial default.
- FactoryTalk View ME .mer application runs.
- Windows desktop launches.

IMPORTANT

- To access Configuration mode from an HMI application on the terminal, press Goto Configuration Mode. This button is added to application screens in FactoryTalk View Studio software during application development. The application stops running but is still loaded.
- If your application does not have a Goto Configuration Mode button, see Enter Configuration Mode on Startup on page 50 for details on how to access Configuration mode.
- To access Configuration mode from the Windows desktop, double-click the FTViewME Station icon .

Figure 6 - FactoryTalk View ME Station Dialog Box

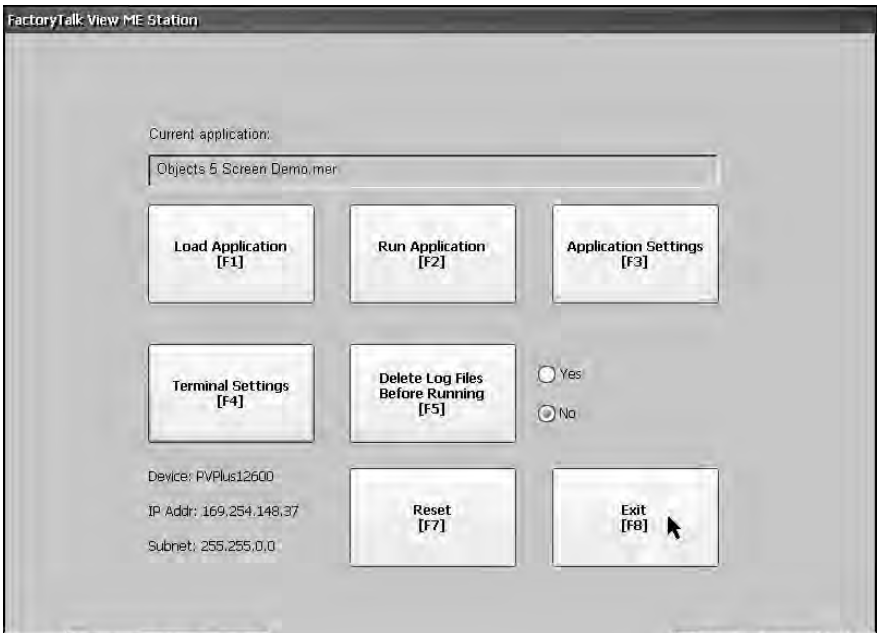


Table 17 - Terminal Operations

Press	To
Load Application [F1]	Open a dialog box where you select a .mer application to load in the device. You must load an application before you can run it. The name of the loaded application appears under Current Application.
Run Application [F2]	Run the .mer application currently loaded in the terminal.
Application Settings [F3]	Open a menu of application-specific settings, such as device shortcuts defined for the loaded .mer application. Device shortcuts are read-only. For example, CLX is the device shortcut for a ControlLogix controller.
Terminal Settings [F4]	Open a menu of options to modify terminal settings.
Delete Log Files Before Running [F5]	Toggle between Yes and No. • Select Yes to delete all data log files, alarm history, and alarm status files before running the application. • Select No to run the application without deleting log files.
Reset [F7]	Reset the terminal and launch an HMI application, FactoryTalk View ME Station software, or the Windows desktop. The action that occurs depends on the configured startup-option.
Exit [F8]	Exit FactoryTalk View ME Station. If desktop access is allowed, you can access the desktop.
Device, IP Addr, Subnet (display only)	Identifies the device name, IP address, and subnet of the terminal on a connected Ethernet network. The network information is updated every 60 seconds. If the terminal is disconnected from the network, the IP address and subnet appear as 0.0.0.0.

Terminal Settings

The terminal has settings you can adjust that are not specific to the application.

1. Press Terminal Settings from the FactoryTalk View ME Station dialog box.
2. Select an option by touching the up and down cursors.
3. Press Enter to access selected function.

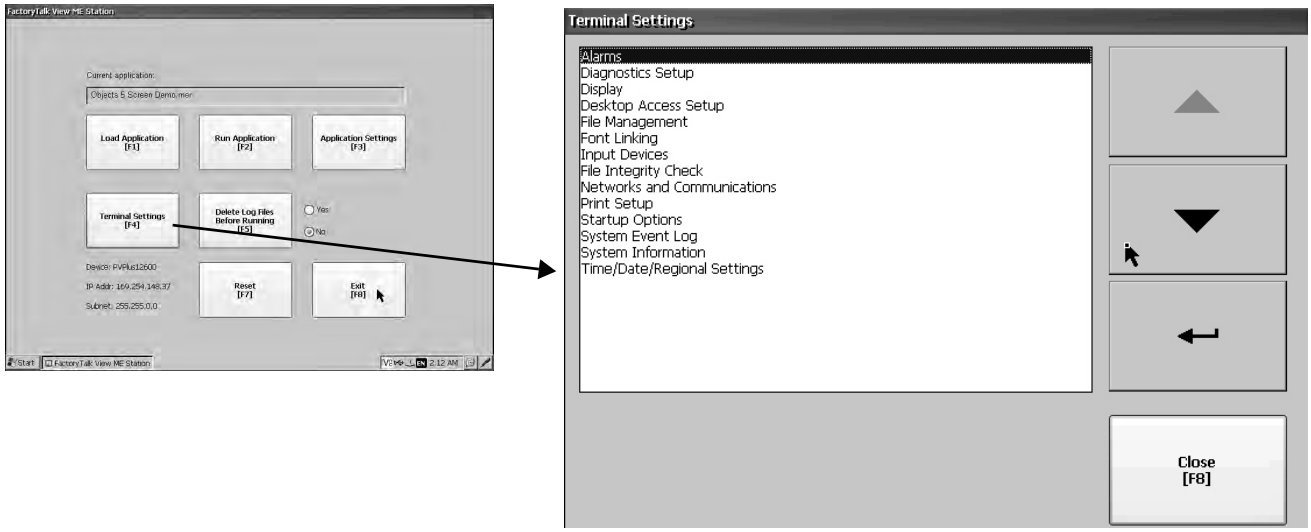


Table 18 - Terminal Settings

Select This Option	If You Want To
Alarms	Close the alarm display on the terminal when the newest alarm is acknowledged by an operator. By default, the alarm display is closed.
Diagnostics Setup	Edit the location where diagnostic messages are saved and determine what kind of messages are saved.
Display	Adjust the brightness of the display, configure the screen saver, and enable/disable the touch screen cursor.
Desktop Access Setup	Allow or restrict access to the desktop, set or reset the desktop password.
File Management	Copy application files and font files to the terminal, an SD card or a USB drive. You can also delete application files, log files, and font files.
Font Linking	Link a font file to a base font loaded on the terminal.
Input Devices	Configure settings for the keypad, attached keyboard, mouse, or touch screen, including touch screen calibration. You can also choose between a pop-up character input or pop-up keyboard for string input.
File Integrity Check	Check the integrity of the .mer application file and runtime files by logging details to a file integrity check log. You can view and clear this log at any time.
Networks and Communications	Configure Ethernet and other communication settings for an application.
Print Setup	Configure settings for printing displays, alarm messages, or diagnostics messages generated by the application.
Startup Options	Specify whether the terminal launches the desktop, an application, or FactoryTalk View ME Station Configuration mode on startup.
System Event Log	Display system events logged by the terminal and clear events from the log.
System Information	Display power, temperature, battery and memory details for the terminal. You can also view the firmware version for FactoryTalk View ME Station, and other software loaded on the terminal. Technical support information.
Time/Date/Regional Settings	Set the date, time, language, and numeric format used by terminal and applications.

Soft Keyboard

When you activate a data entry field on the terminal, a keyboard opens. For fields that require only numeric values, 0...9 and the decimal is enabled.

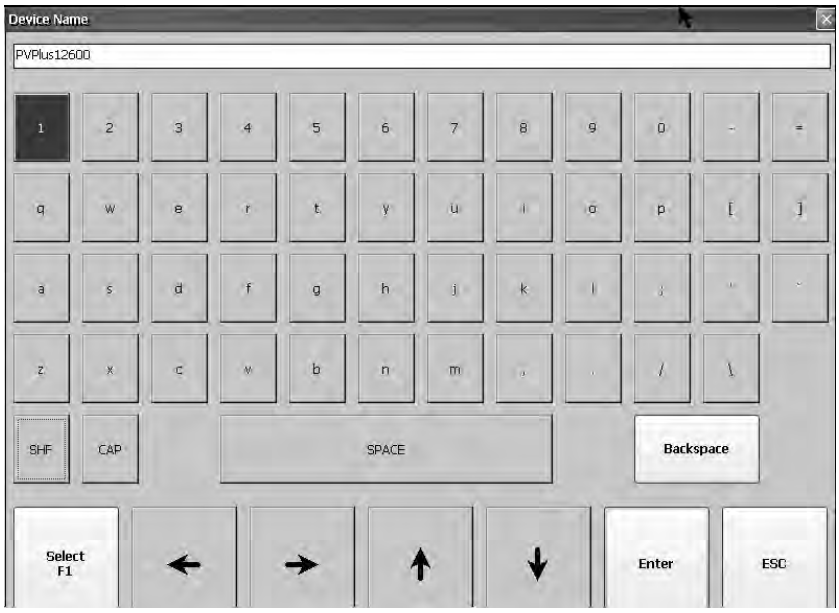


Table 19 - Soft Keyboard Controls

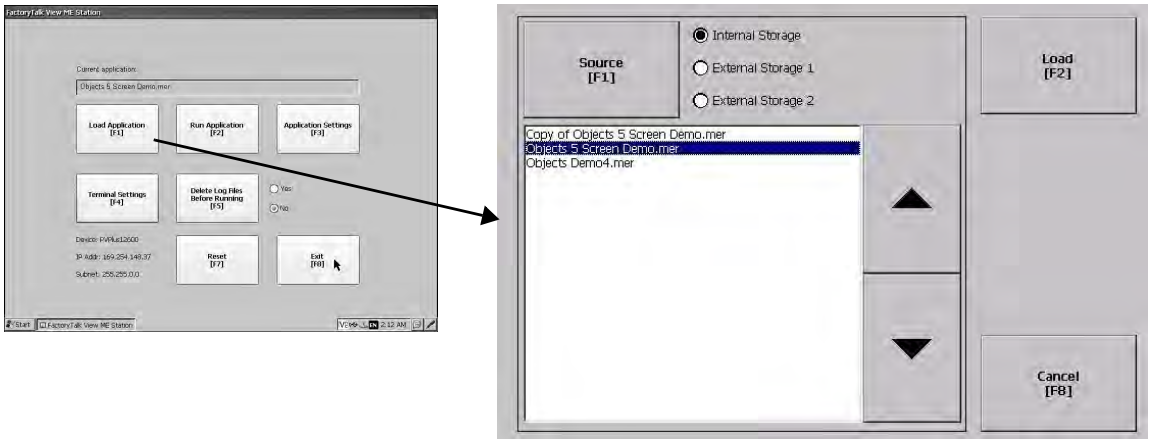
Select this key:	To:
SHF	Switch keys between their shifted and unshifted state.
CAP	Switch between lowercase and uppercase characters.
SPACE	Enter a space between characters in the display area.
Backspace	Delete the previous character (to the left of the cursor) in the display area.
Select	Enter a selected character into the display area.
Left, right, up, down arrow	Select the character to the left, right, above, or below the currently selected character.
Enter	Accept the entered characters and return to the previous dialog box.
ESC	Cancel the current operation and return to the previous dialog box.

To enter characters in the display area above the keyboard, follow these steps.

1. Select a character on the keyboard by touching a key.
2. Press Enter when done to exit the keyboard.

Load and Run an Application

To run a FactoryTalk View ME .mer application on the terminal, you must first load the application. You can load the application from internal storage (nonvolatile memory) in the terminal, an SD card, or a USB drive.



To load and run an application on the terminal, follow these steps.

1. Press Load Application from the FactoryTalk View ME Station dialog box.
2. Press Source to select the location of the file to load:
   - Internal Storage – nonvolatile memory of the terminal.
   - External Storage 1 – SD card loaded in the card slot.
   - External Storage 2 – USB drive loaded in the USB host port.

   TIP The path for Machine Edition files on the terminal is My Device\Application Data\Rockwell Software\RSViewME\Runtime.

   The path for Machine Edition files on the SD card or USB drive is \Rockwell Software\RSViewME\Runtime.
3. Use the up and down cursor keys to select a .mer file from the list.
4. Press Load to load the selected application.

   You are asked if you want to replace the terminal's current communication settings with those defined in the application.
5. Select Yes or No.
   - Select Yes to use the communication settings in the application. Communication settings configured for the terminal are replaced by the application settings.
   - Select No to use the terminal's communication settings.

   The application loads and its name appears at the top of the FactoryTalk View ME Station dialog box.
6. Press Run Application on the FactoryTalk View ME Station dialog box to run the application just loaded.

TIP

- Applications generate log files. You can delete log files from the FactoryTalk View ME Station dialog box before running the application. Delete log files to reclaim memory in the terminal.
- Refer to Run the Loaded Application on Startup on page 51 to set the application to automatically run on startup or reset.

Desktop Access

You can allow or restrict access to the desktop on the terminal. From the desktop, you can perform system and control panel operations. You can allow access temporarily, then disable desktop access to prevent unauthorized changes.

TIP Terminals are shipped from the factory with desktop access disabled.

With restricted access, you must enter a password to access the desktop. Each terminal has a default password and a challenge question.

Default Password Credentials	Values
Password	password (case sensitive)
Challenge question	What is the opposite of lock?
Challenge answer	unlock (case sensitive)

IMPORTANT Rockwell Automation recommends that you change the default password and challenge question and answer to something unique for your installation.

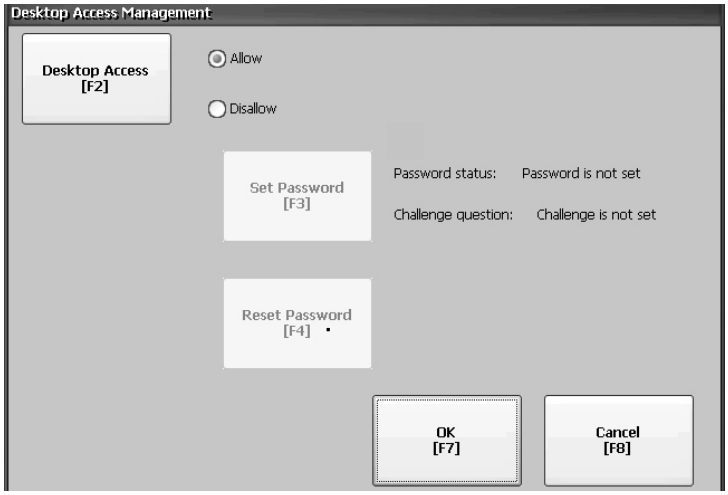
Enable Desktop Access

To enable desktop access, follow these steps.

1. Press Terminal Settings, then choose Desktop Access Setup.
2. Press Desktop Access to select Allow.

   The Enter Password dialog box opens.

   Each time you change desktop access from disallow to allow, you must first enter a password. The initial default password is 'password'.
3. Press Password to type the password then press Enter.
4. Press Enter again to return to Desktop Access Management.



Notice the password is no longer set.

5. Press OK to exit Desktop Access Management, then Close to exit terminal settings and return to the FactoryTalk View ME Station dialog box.
6. Press Exit to access the desktop.

   When desktop access is enabled, you are not required to enter a password.

Disable Desktop Access

IMPORTANT To restrict desktop access, the start-up option must be set to either Go to Configuration Mode or Run Current Application. See page 49 for details.

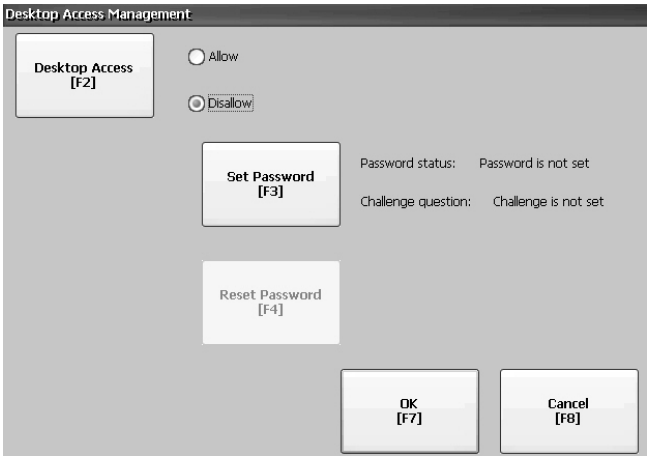
Restricting desktop access requires you to define a desktop password and challenge question:

- The password lets you access the desktop from FactoryTalk View ME Station when pressing Exit.
- The challenge question and response lets you change the password with the Reset function.

To disable desktop access, follow these steps.

1. Press Terminal Settings, then choose Desktop Access Setup.
2. Press Desktop Access to select Disallow.

   The Set Password button is enabled.



IMPORTANT If an error message displays you can change the startup option to Go to Configuration Mode or Run Current Application.

You cannot restrict access to the desktop if Startup Options is configured for Do not start FactoryTalk View ME Station.

3. Refer to Set a Desktop Password on page 47 to define a new password and challenge question.

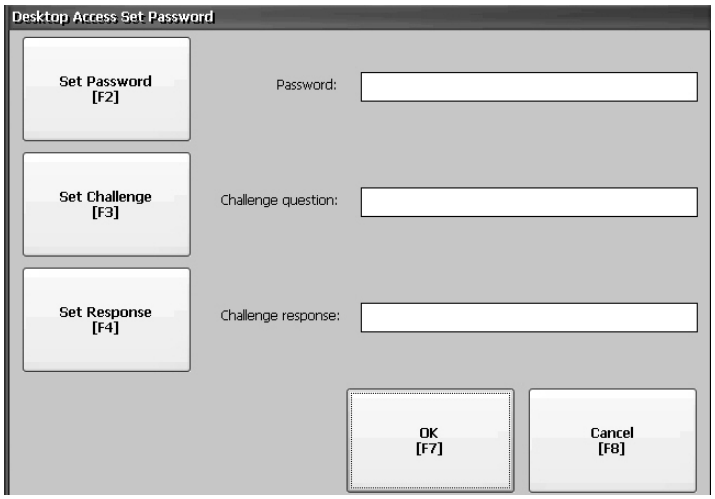
Set a Desktop Password

IMPORTANT When restricting access to the desktop, you must define a new password and challenge question

To define a new desktop password, follow these steps.

1. Press Set Password.

   The Desktop Access Set Password dialog box opens.



2. Press Set Password, enter an 8...20 character password, then press Enter.

   IMPORTANT You must correctly enter this password before accessing the desktop.

3. Press Set Challenge to enter a challenge question that you must correctly respond to when resetting the desktop password.
4. Press Set Response to enter a response to the challenge question, then press Enter.
5. Press OK.

   The Desktop Access Management Dialog shows that a password and challenge question are set.

6. Press OK to return to terminal settings.

IMPORTANT Secure your password and challenge question for future use. To clear and reset the password, you must correctly respond to the challenge question. If you forget the response, the only way to clear the password is to restore the factory default settings on the terminal. See Factory default on page 137.

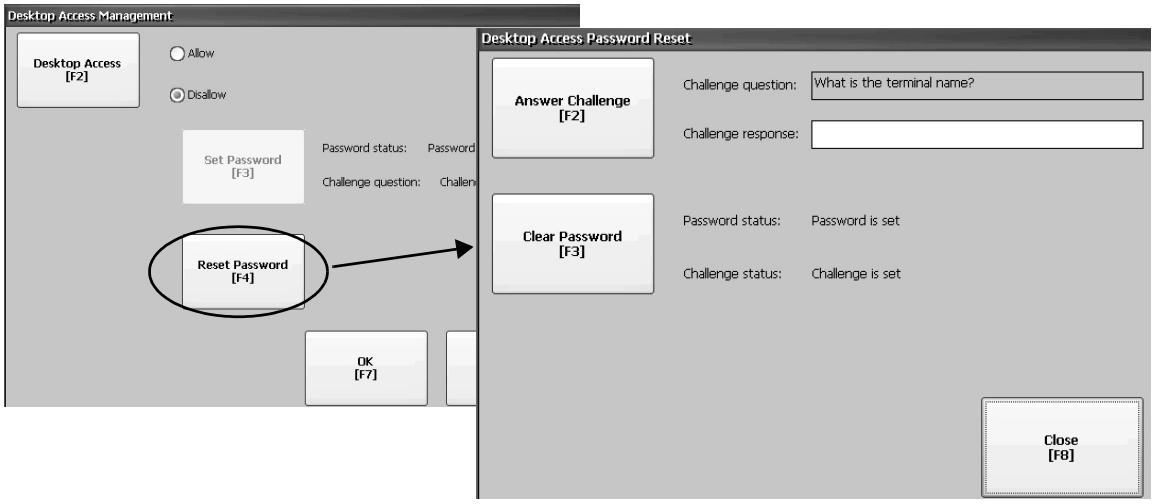
Reset the Desktop Password

To clear and change the current password, you must correctly respond to the current challenge question. If you do not remember the response, you must restore the terminal to its factory defaults. Refer to Maintenance Mode Operations on page 137.

IMPORTANT	You can reset the password and challenge questions if access to the desktop is restricted or set to disallow.

To reset the desktop password, follow these steps.

1. Press Reset Password from the Desktop Access Management dialog box.



2. Press Answer Challenge and enter the correct response to the current challenge question.
3. Press Clear Password to clear the current password and challenge question.

   The dialog box shows the updated status of the password and challenge information.
4. Press Close.
5. Refer to Set a Desktop Password on page 47 to set a new password and challenge question.

   After clearing the password, you must set a new desktop password or change the desktop access to 'Allow'.

Configure Start-up Options

You can specify what action the terminal takes on startup or a reset.

This Start-up Option	Performs This Action	Typical System
Do not start FactoryTalk View ME Station	Launches the Windows desktop on startup.	Open
Go to Configuration Mode	Launches FactoryTalk View ME Station in Configuration mode on startup. This is the initial, factory default setting.	Closed
Run Current Application	Runs the FactoryTalk View ME application loaded in the terminal on startup.	Closed

IMPORTANT When desktop access is restricted, the start-up option must be set to Run Current Application or Go to Configuration Mode (default). See page 44 for details on how to allow or restrict desktop access.

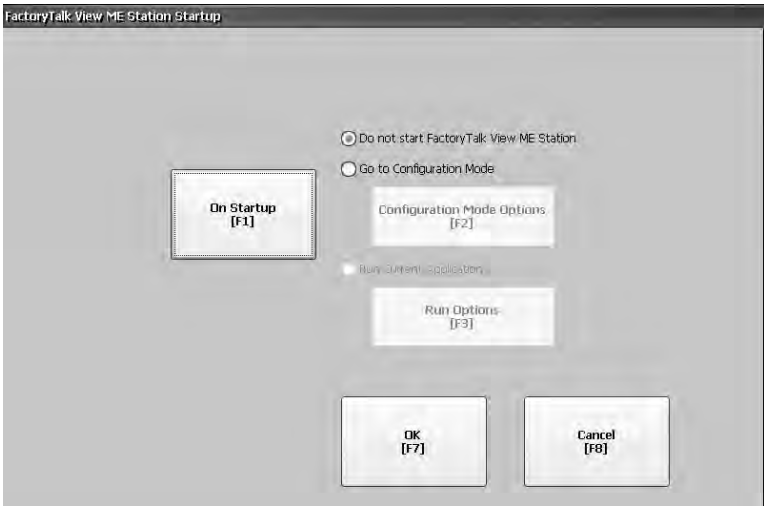
Disable FactoryTalk View ME Station on Startup

To launch the desktop on startup, you must disable FactoryTalk View ME Station.

TIP You can also launch the desktop by pressing Exit on the FactoryTalk View ME Station dialog box.

To disable FactoryTalk View ME Station on startup, follow these steps.

1. Press Terminal Settings, then choose Startup Options.



2. Press On Startup until 'Do not start FactoryTalk View ME Station' is selected.

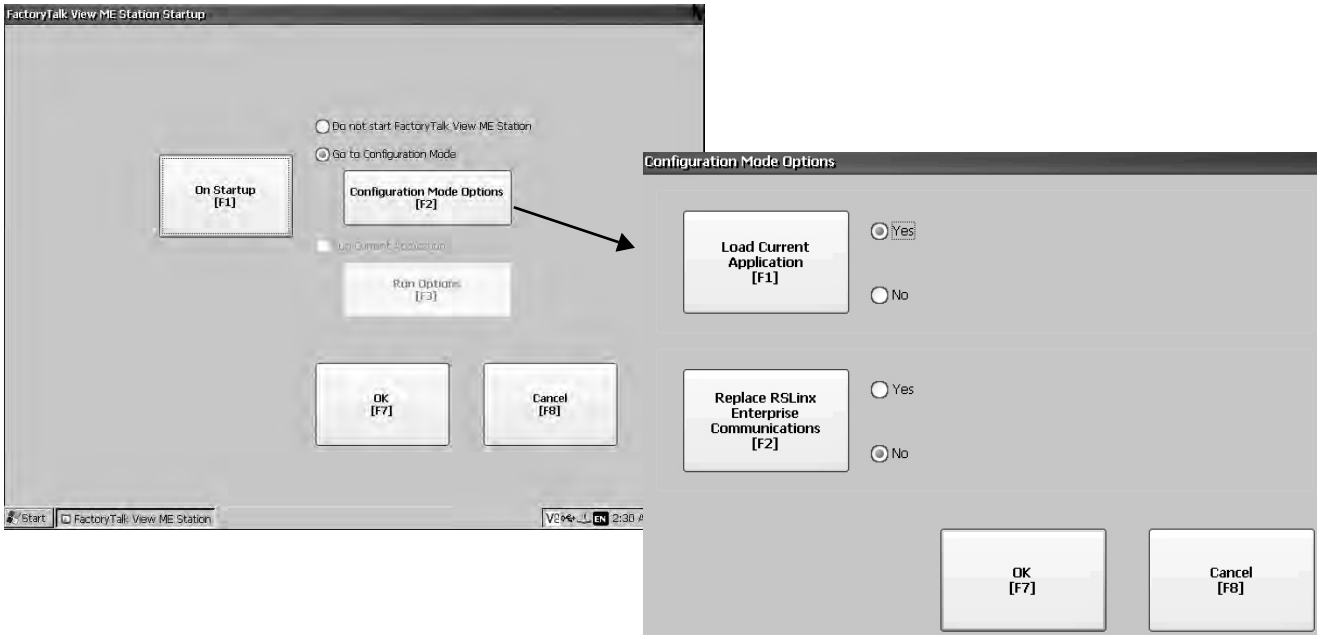
   TIP Desktop access must be set to allow or you get a warning. See enable desktop access on page 44.

3. Press OK.

Enter Configuration Mode on Startup

To launch FactoryTalk View ME Station in Configuration mode on startup, follow these steps.

1. Press Terminal Settings, then choose Startup Options.
2. Press On Startup to select Go to Configuration Mode.
3. Press Configuration Mode Options to view or change optional settings.



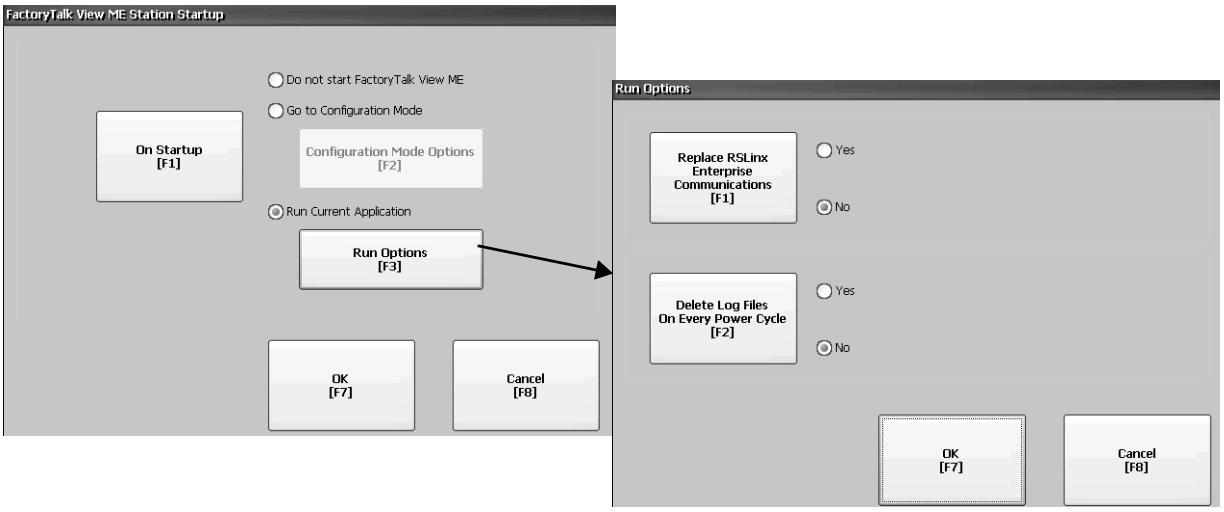
4. Press Load Current Application to specify whether you want to load the current application on startup.
5. Press Replace RSLinx Enterprise Communications to specify what configuration settings are used when the loaded application is run:
   - Select No to use the RSLinx® communication settings in the terminal.
   - Select Yes to replace the terminal settings with the communication settings in the application. Any changes to RSLinx device addresses or driver properties on the terminal are lost.
6. Press OK to return to the previous dialog box.
7. Press OK to return to terminal settings.

Run the Loaded Application on Startup

To run the FactoryTalk View .mer application loaded in the terminal on startup, follow these steps.

1. Press Terminal Settings, then choose Startup Options.
2. Press On Startup to select Run Current Application.
3. Press Run Options to view or change optional settings.

   If the application is not loaded, the options are disabled.



4. Press Replace RSLinx Enterprise Communications to specify what configuration settings are used when running the application:
   - Select No to use the RSLinx communication settings in the terminal.
   - Select Yes to replace the terminal settings with the communication settings in the application. Any changes to RSLinx device addresses or driver properties on the terminal are lost.
5. Press Delete Log Files On Every Power Cycle to specify what action to take with the log files on startup:
   - Select Yes to delete all log files (data, alarm history, alarm status) generated by the terminal before running the application. The files are deleted from the system default location.
   - Select No to retain all log files.
6. Press OK to return to the previous dialog box.
7. Press OK to return to terminal settings.

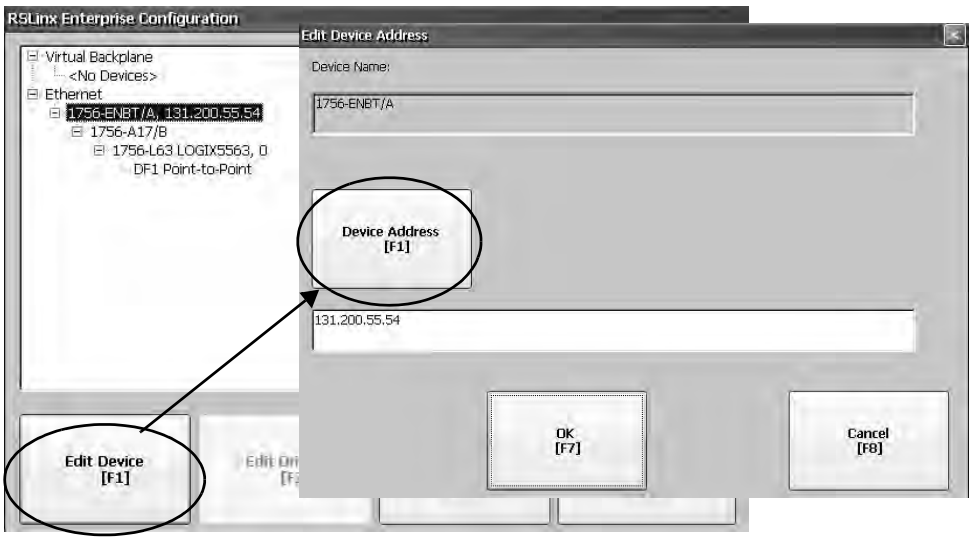
Configure Controller Address

Use RSLinx Enterprise software to configure communication information for your application and controller.

TIP You can also configure communication information for your application and controller by using FactoryTalk View Studio software.

To edit the device address of the controller, follow these steps.

1. Press Terminal Settings, then choose Networks and Communications>RSLinx Enterprise Communications.



2. Select the controller in the tree.
3. Press Edit Device to view the device name and current address.
4. Press Device Address to modify the address.

   The input panel opens with the current address.
5. Enter the address in the input panel and press Enter.
6. Press OK.

Updates do not take effect until the terminal is restarted.

Configure Ethernet Settings

The terminal has a built-in Ethernet driver. You can modify the following Ethernet information for your device:

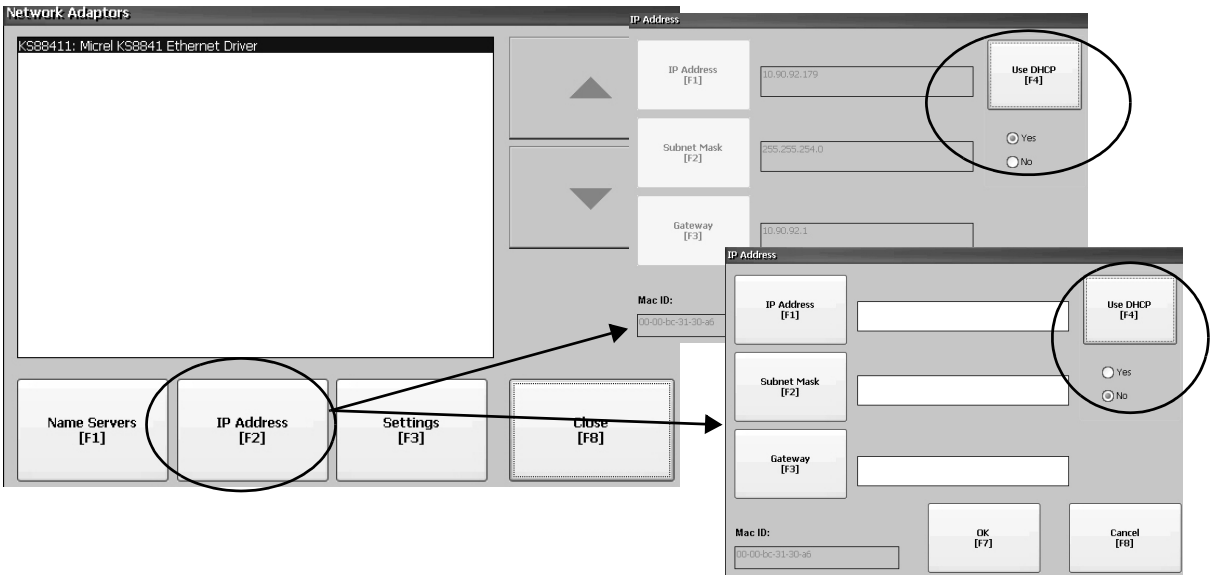
- IP address of terminal on network, including link speed
- Device name that identifies terminal on network
- User name and password to access network resources

Set the Ethernet Address of the Terminal

Some networks automatically assign an IP address to Ethernet devices if dynamic host configuration protocol (DHCP) is enabled. If DHCP is disabled, you can manually enter an IP address.

To view or enter an IP address for your terminal, follow these steps.

1. Press Terminal Settings, then choose Networks and Communications>Network Connections>Network Adapters.



2. Press IP Address to view or modify the IP address.
3. Press Use DHCP to enable or disable DHCP assignment of addresses.
   - If DHCP is enabled or set to Yes, IP addresses are automatically assigned to newly attached devices on the network.
   - If DHCP is disabled or set to No, you can manually enter the IP address. Press IP Address, Subnet Mask, and Gateway to enter IP formatted addresses.

TIP

- IP Address – The format of the IP address is *xxx.xxx.xxx.xxx;* for example, 192.168.124.96. The first set of decimal numbers is in the range 1…255; the last three sets are in the range 0…255. The default is 000.000.000.000.
- Subnet Mask – Address must be identical to the server subnet mask.
- Gateway – optional address.
- Mac ID – read-only field.

4. Press OK when done.

   If prompted, reset the device from the FactoryTalk View ME Station dialog box.
5. Press Close.

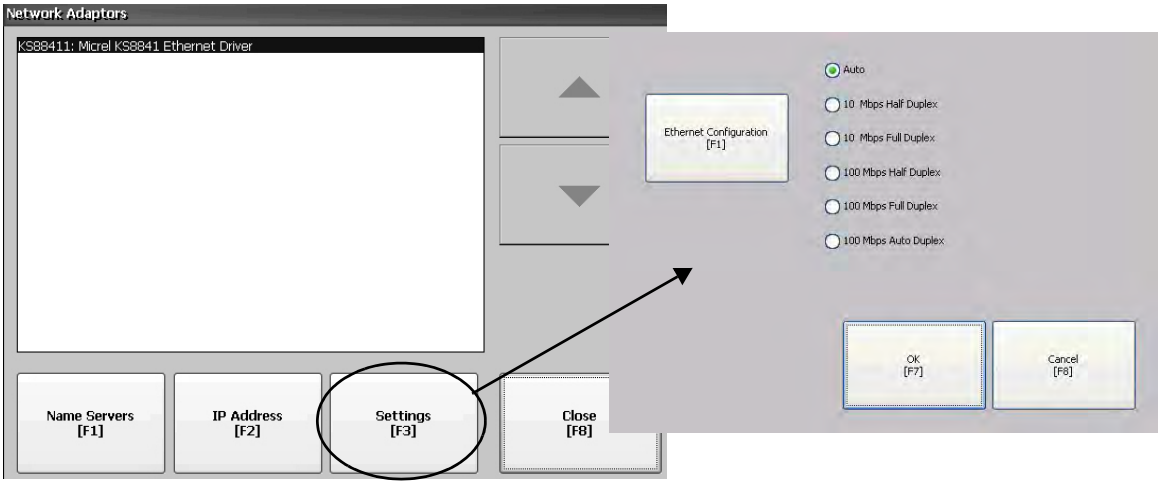
Set the Ethernet Link Speed

You can change the rate and mode for how data is transmitted on the Ethernet network. The default setting is Auto. The Auto option automatically configures the speed of the device to match the speed on the local network.

TIP The Auto option is preferred because it determines the actual speed and duplex setting of the connected device on the Ethernet network.

If you select a manual option, make sure that the speed and duplex setting for the connected device on the Ethernet network is identical or there can be decreased network performance and errors.

1. Press Terminal Settings, then choose Networks and Communications>Network Connections>Network Adapters.

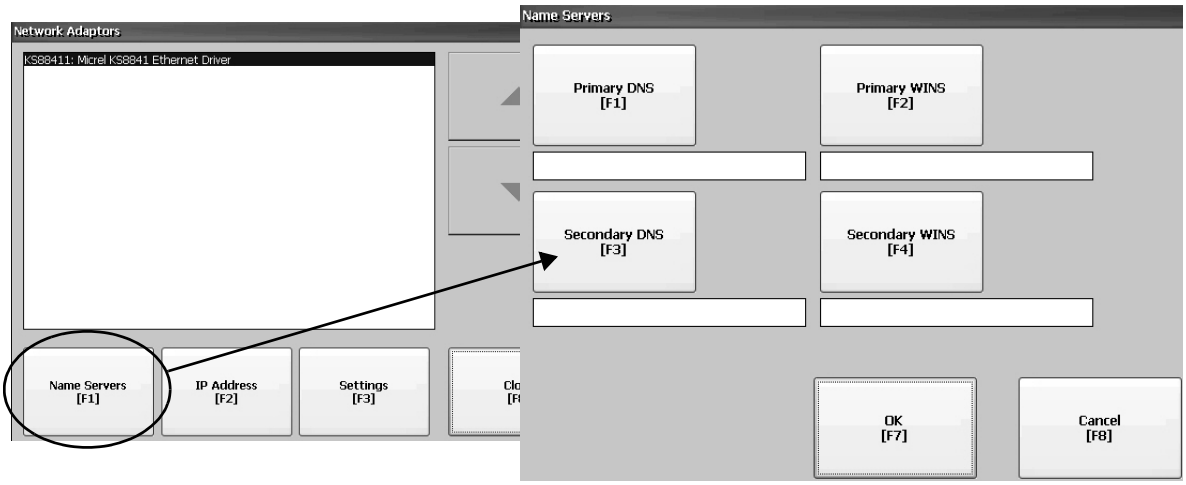


2. Press Settings to access the Ethernet link settings.
3. Press Ethernet Configuration to change the rate that data is transmitted at over the Ethernet network.
4. Press OK to return to the Network Adapters dialog box.

Name the Server Addresses

You can name the server addresses for the EtherNet/IP network adapter. These addresses are automatically assigned if DHCP is enabled for the adapter.

1. Press Terminal Settings, then choose Networks and Communications>Network Connections>Network Adapters.

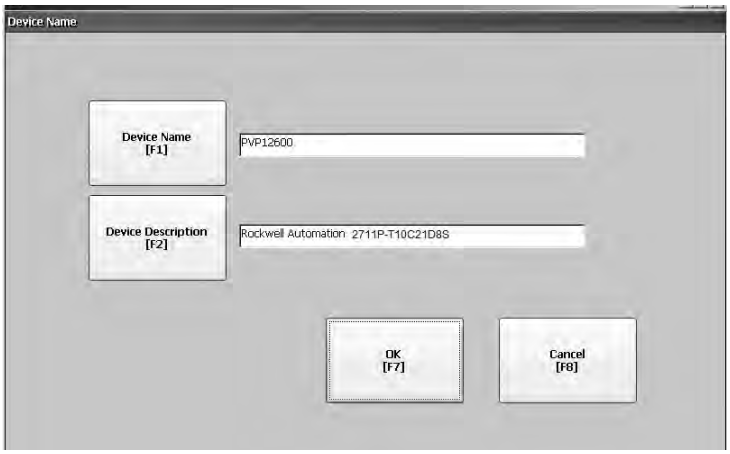


2. Press Name Servers.
3. Press a button to enter a corresponding name server address.
4. Press OK when done.

Modify Device Name of Terminal

Each terminal has a unique name that identifies it on the network.

1. Press Terminal Settings, then choose Networks and Communications>Network Connections>Device Name.
2. Press Device Name to edit the default device name.



TIP The device name has 1…15 characters:

- First character must be an upper or lowercase letter a…z, A…Z.
- Remaining characters can be a…z, A…Z, 0…9, or - (hyphen).

3. Press Device Description to modify the description for the device.

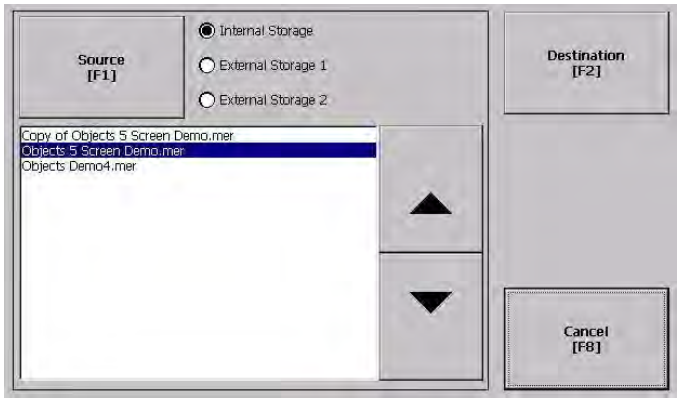
TIP The description is a maximum of 50 characters. The default description is Rockwell Automation plus the device catalog number.

4. Press OK.

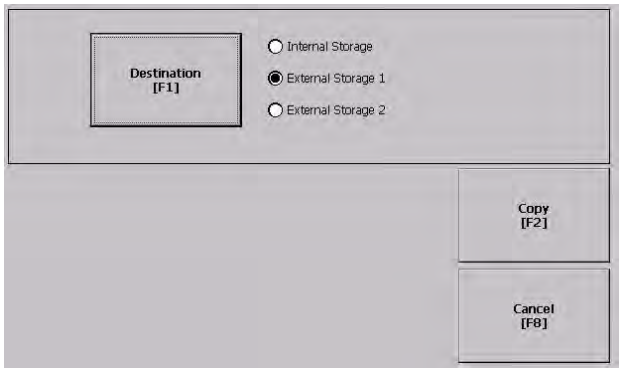
Copy Files on Terminal

You can copy FactoryTalk View ME .mer application files or font files between nonvolatile memory of the terminal and a USB drive, or SD card.

1. Press Terminal Settings, then choose File Management>Copy Files>Copy Applications or Copy Fonts.



2. Press Source to select the location of the file you want to copy:
   - Internal Storage – nonvolatile memory of the terminal.
   - External Storage 1 – SD card loaded in card slot of terminal.
   - External Storage 2 – USB drive loaded in USB host port of terminal.
3. Select a file that appears in the list for the selected storage area.
4. Press Destination on the same dialog box.



5. Press Destination to select the storage location to copy the file.

   The destination must be different than the source location.
6. Press Copy to copy the selected file to the target location.

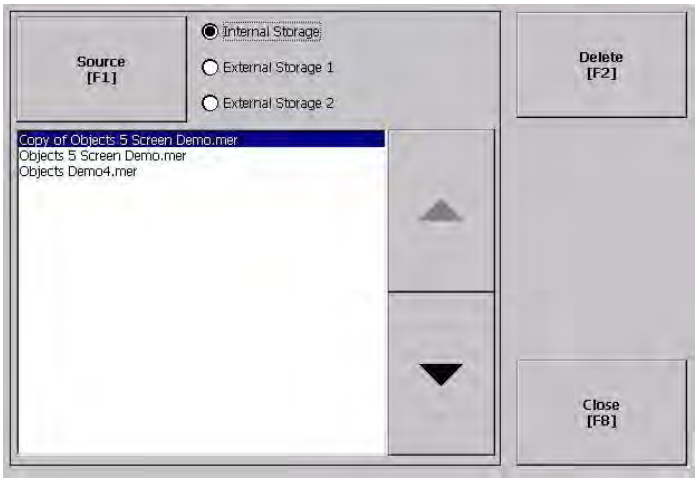
   If the file exists you are asked if it is okay to overwrite the file. Respond by selecting Yes or No.

TIP If you are saving files to the terminal, be sure to save the .mer files to My Device\Application Data\Rockwell Software\RSViewME\Runtime\ and save font files to \Rockwell Software\RSViewME\Fonts\.

Delete Files from Terminal

You can delete FactoryTalk View ME application .mer files or font files that reside in nonvolatile memory of the terminal, a USB drive, or an SD card.

1. Press Terminal Settings, then choose File Management>Delete Files>Delete Applications or Delete Fonts.



2. Press Source to select the storage location of the application or font file you want to delete:
   - Internal Storage – nonvolatile memory of the terminal.
   - External Storage 1 – SD card loaded in card slot of terminal.
   - External Storage 2 – USB drive loaded in USB host port of terminal.
3. Select a file that appears in the list for the selected storage area.
4. Press Delete.
5. Select Yes or No when asked if you want to delete the selected application or font file.

Delete Log Files

You can delete log files, alarm history files, and alarm status files from the System Default location of the terminal. These files are generated by the application during runtime.

1. Press Terminal Settings>File Management>Delete Files>Delete Log Files.

   You are asked to confirm the deletion of the files.

   Do you want to delete all of the FactoryTalk View ME Station Log Files?
2. Select Yes or No.

Log files not in the System Default location are not deleted.

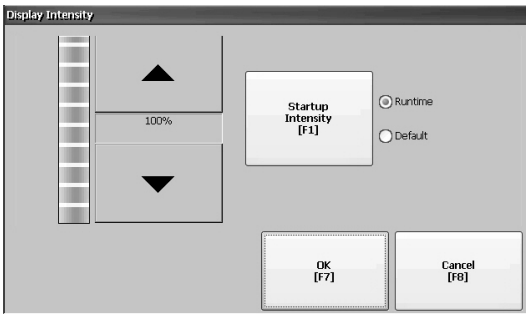
Display Settings

For the terminal display, you can change its brightness, configure the screen saver, or disable the screen cursor.

Adjust Display Intensity

You can adjust the intensity of the backlight in 10% increments from 1...100%. At 0% the backlight is minimally visible. You can use the default intensity of 100% or adjust the intensity for runtime operations.

1. Press Terminal Settings, then choose Display>Display Intensity.

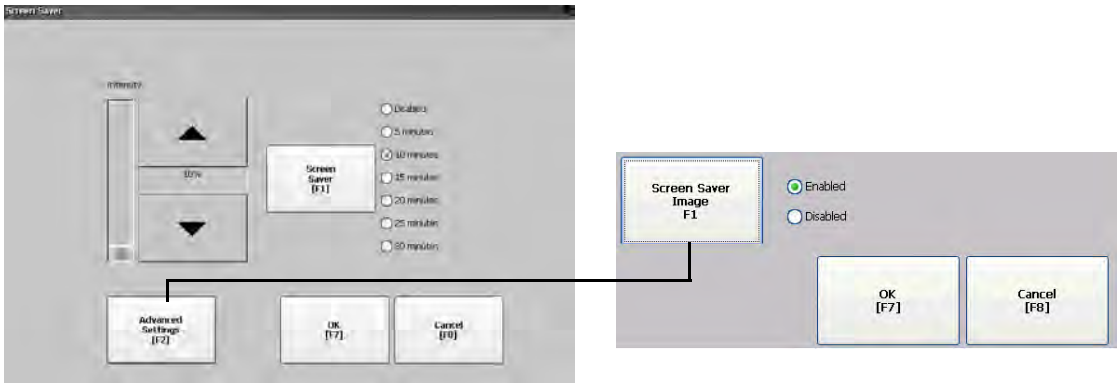


2. Press Startup Intensity to switch between Default intensity and Runtime intensity.
   - If you select Runtime, the start-up screens use the runtime intensity.
   - If you select Default, the start-up screens use the default setting of 100%.
3. Increase or decrease the intensity for runtime operations by pressing the up or down cursors.
4. Press OK when done to save changes.

Configure the Screen Saver

A screen saver image appears on the terminal display when no user activity is sensed for a certain time. The default idle time is 10 minutes. You can adjust the idle time and intensity level of the screen saver, disable the screen saver, or disable the screen saver image.

1. Press Terminal Settings, then choose Display>Screen Saver.



2. Press Screen Saver to change the idle period for activating the screen saver.

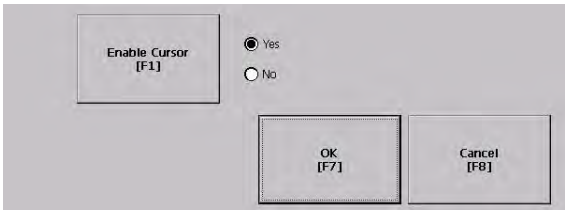
   To disable the screen saver, select Disabled.

3. Press the up and down cursors to increase or decrease the brightness intensity of the screen saver.
4. Press Advanced Settings to access the screen saver image setting.
   a. Press Screen Saver Image to disable or enable the current screen saver. See page 84 for details on how to change the screen saver image.
   b. Press OK to return to the Screen Saver dialog box.
5. Press OK to exit and return to terminal settings.

Disable the Screen Cursor

The terminal has a screen cursor that you can disable or enable.

1. Press Terminal Settings, then choose Display>Cursor.



2. Press Enable Cursor to disable or enable the cursor.
3. Press OK to exit and return to terminal settings.

Input Device Settings

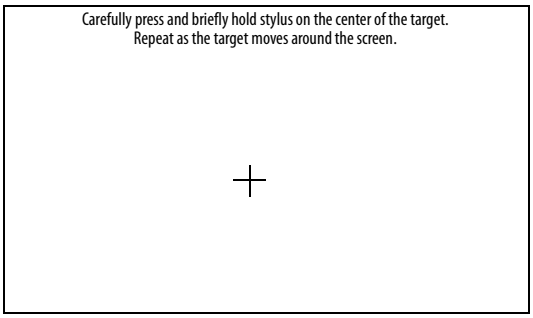
You can adjust settings for input devices used by the terminal including the touch screen and string entry popup.

Calibrate the Touch Screen

To calibrate the touch screen, follow these steps.

IMPORTANT Use a plastic stylus with a minimum tip radius of 1.3 mm (0.051 in.) A stylus is more precise than a finger and also protects the screen.

1. Press Terminal Settings, then choose Input Devices>Touch Screen>Calibration.



2. Follow the instructions on the screen.

   When the calibration is complete, a message appears to indicate the measurement of new calibration settings. You can do one of the following:

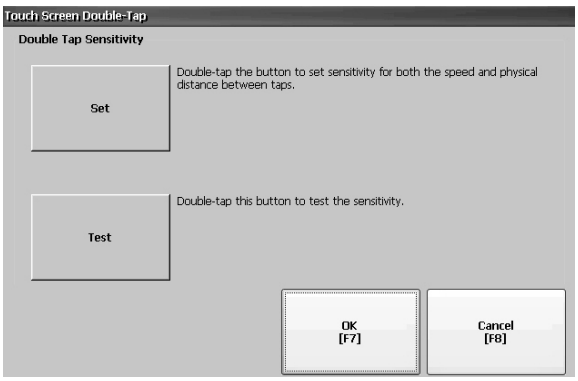
   - Press the screen to register saved data.
   - Wait for 30 seconds to cancel saved data and keep the current settings.

Set the Double-tap Sensitivity for a Touch Screen

You can set and test the sensitivity of both speed and physical distance between touch screen presses.

TIP The process is identical for setting and testing the sensitivity of mouse clicks. To adjust the sensitivity of mouse clicks, press Terminal Settings, then choose Input Devices>Mouse.

1. Press Terminal Settings, then choose Input Devices>Touch Screen>Double Tap Sensitivity.


Touch Screen Double-Tap
Double Tap Sensitivity
Set
Double-tap the button to set sensitivity for both the speed and physical distance between taps.
Test
Double-tap this button to test the sensitivity.
OK [F7]
Cancel [F8]

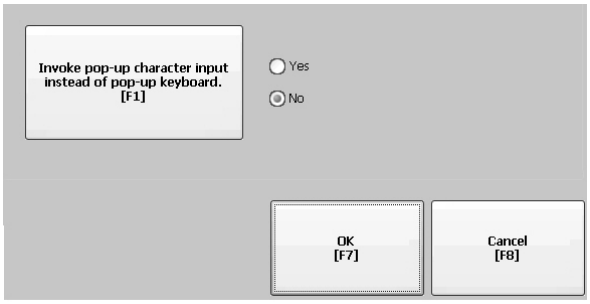
2. Double-tap Set to set the sensitivity of touch screen presses.
3. Double-tap Test to test the sensitivity of touch screen presses.

   The Test button reverses its foreground and background colors.
4. Press OK when done.

Change the Popup for String Entry

You can use a string popup for character input instead of the popup keyboard or input panel.

1. Press Terminal Settings, then choose Input Devices>String Popup.



2. Press 'Invoke pop-up character input instead of pop-up keyboard' to select the preferred method for character input.
3. Press OK.

Configure Print Options

You can configure settings for printing displays, alarm messages, or diagnostic messages from FactoryTalk View ME applications. The setup for printing displays and messages is the same; advanced settings are different.

PanelView Plus 7 Standard terminals support selected printers. For a list of supported printers, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'Printers Supported on PanelView Plus'.

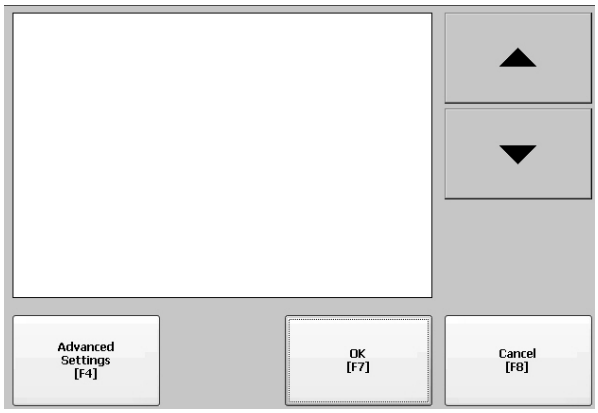
Printer installation is plug-and-play. Supported printers are automatically mapped to the appropriate driver. Printers that do not configure automatically to the appropriate driver can be installed manually.

To access the print setup, follow these steps.

1. Press Terminal Settings, then choose a Print Setup> option:
   - Alarm Print Setup
   - Diagnostic Setup
   - Display Print Setup

   The Print Setup dialog box shows installed printers that are available to the FactoryTalk View ME application. The list of printers that shows depends on what printers you install.

   The terminals are not shipped with pre-configured printers so initially the dialog box is empty.



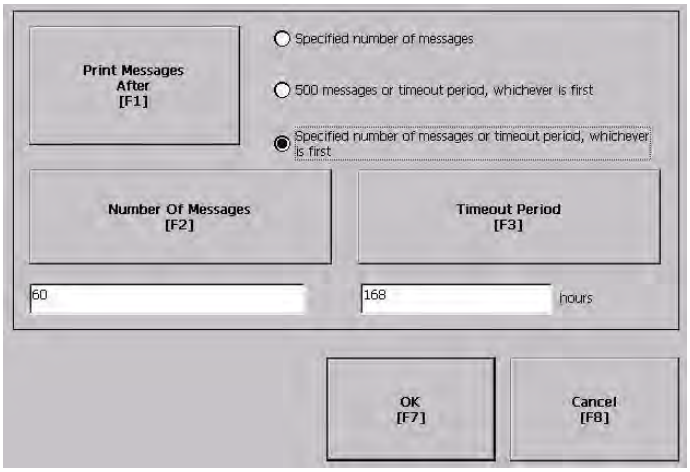
2. Select an installed printer.

TIP The printer you select must be in the control panel Printers applet.

A failed attempt to automatically install a printer is reported in the system event log.

Use the control panel in Windows Explorer to manually install a printer that does not install automatically.

3. Press Advanced Settings to access these options:
   - Options for printing displays include print orientation, draft mode, and color.
   - Options for printing diagnostic and alarm messages determine when to print messages sent to the network or USB port.



Print Messages After	Default Value	Example
Specified number of messages	60 messages	When the queue has 60 messages, the messages are printed regardless of how long they have been in the queue. You can change the number of messages.
500 messages or timeout period, whichever is first	168 hours (7 days)	If the queue has 350 messages after 168 hours, the 350 messages are printed. You can change the timeout period.
Specified number of messages or timeout period, whichever is first.	60 messages 168 hours (7 days)	If the queue has 60 messages after 24 hours, then the 60 messages are printed. You can change the number of messages and the timeout period. For example, the number of messages is set to 75 and the timeout period is set to 48 hours. • If the queue has 75 messages after 24 hours, then the 75 messages are printed before the set timeout of 48 hours. • If the queue has 15 messages after 48 hours, the 15 messages are printed after the set timeout period.

4. Press OK when done.
5. Press OK to return to terminal settings.

Configure Diagnostics

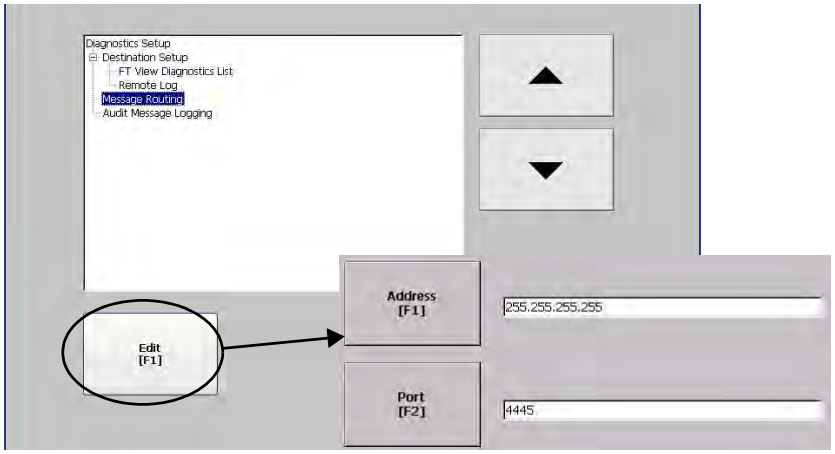
You can log diagnostics to a remote computer for troubleshooting.

To set up and forward diagnostics to a computer, follow these steps.

1. Press Terminal Settings, then choose Diagnostic Setup.

   A list of diagnostic nodes appears.

   TIP To access Remote Log or Message Routing setup, select the node then press Edit.



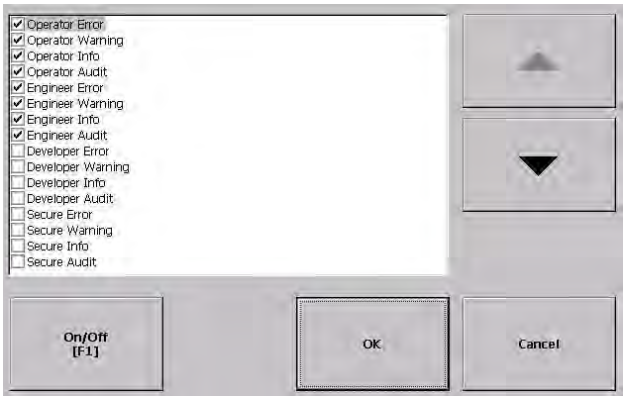
The Remote Log destination forwards messages to a Windows computer running diagnostics. The IP address and port number identify the computer.

Field	Description	Valid Values
Address	IP address of the remote Windows computer.	*xxx.xxx.xxx.xxx*
Port	The port used to communicate with the remote Windows computer.	4445 (default)

Select Message Routing to access the following dialog boxes:

- Remote Log
- FactoryTalk View Diagnostics List

Each dialog box shows a list of messages that can be sent to a destination. Cursor to a message, then press On/Off to enable or disable the message. Messages with checked boxes are enabled. Messages with cleared boxes are disabled.



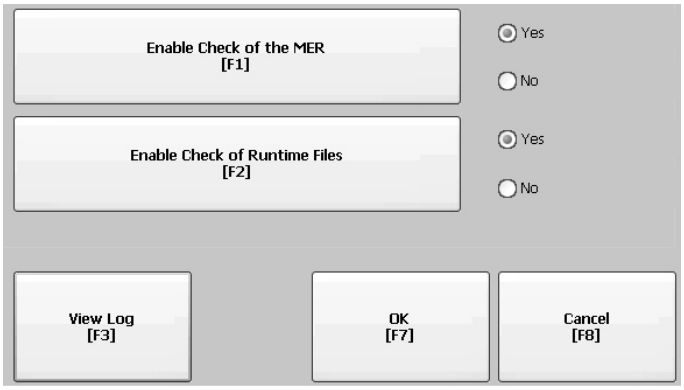
Audit Message Logging lets you log messages as Audit or Information.

Check Integrity of Application Files

It is good practice to periodically check the integrity of the .mer application loaded in the terminal and the runtime files. Errors, warnings, and information messages are logged to a file. You can view the log and clear items from the log.

TIP Runtime files allow applications to run on the terminal. If the terminal is not functioning correctly, a review of the logs can identify an error in a runtime file.

1. Press Terminal Settings, then choose File Integrity Check.



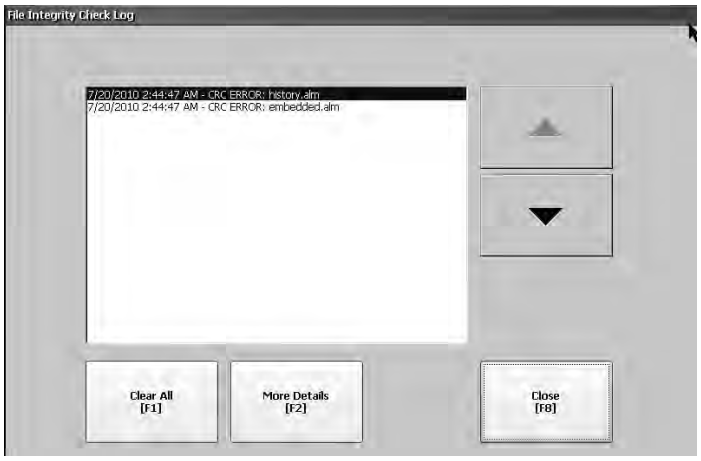
2. Press either of the Enable options to disable integrity checks of the .mer application or the runtime files.

   Integrity checks are automatically performed on the application .mer file and runtime files. If you disable either of these functions, the files are not checked and the log file is not updated.

3. Press OK to save changes.

To view the log generated by runtime files, follow these steps.

1. Press View Log from the File Integrity Check dialog box.



2. Select an event and press More Details to display details for that event.
3. Press Clear All to clear all details from the log.
4. Press Close to return to previous dialog box.

View and Clear the System Event Log

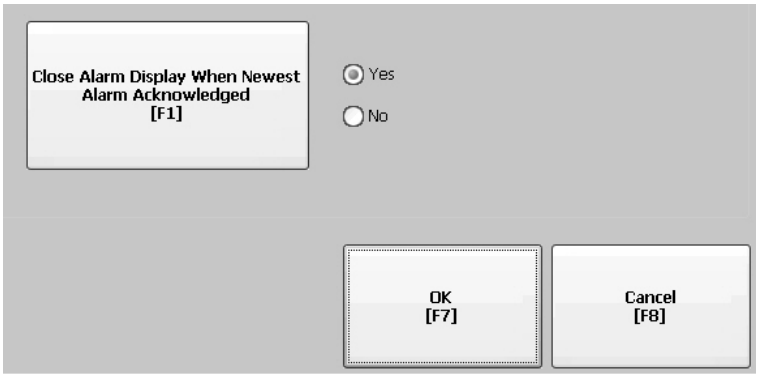
The System Event Log displays warnings, errors, and events logged by the terminal. The log provides a time stamp of when each event occurred and text describing the event. If the event log is full when a new event occurs, the oldest entry is removed to accommodate the new event.

1. Press Terminal Settings>System Event Log.
2. Select an event then press More Details to display details for the event.
3. Press Clear All to clear all events in the log.
4. Press Close.

Enable or Disable the Alarm Display

The terminal displays each alarm as it occurs in the alarm display or alarm banner. When the operator acknowledges the most recent alarm, the alarm display closes or remains open. The default is to close the alarm display.

1. Press Terminal Settings, then choose Alarms.



2. Press 'Close Alarm Display When Newest Alarm Acknowledged' to toggle between Yes or No.
   - Yes closes the alarm display when the newest alarm is acknowledged.
   - No leaves the alarm display open when newest alarm is acknowledged.
3. Press OK.

Display System Information

You can view terminal and firmware revision information for software installed on a terminal.

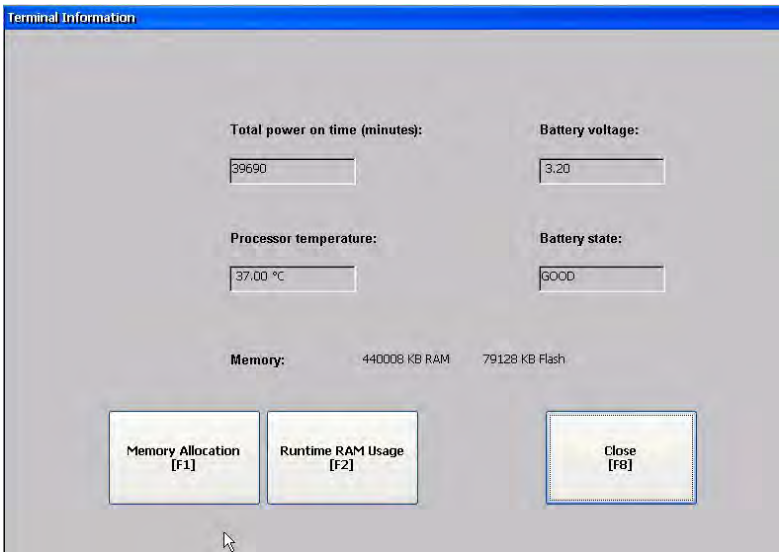
View Terminal Information

You can view the following information:

- Total power on time in minutes
- Processor temperature
- Battery voltage and state
- Memory allocated and in use
- Random access memory (RAM) usage during runtime

To view status information for your terminal, follow these steps.

1. Press Terminal Settings, then choose System Information>Terminal Information.



- Processor temperature must be less than 90 °C (194 °F).

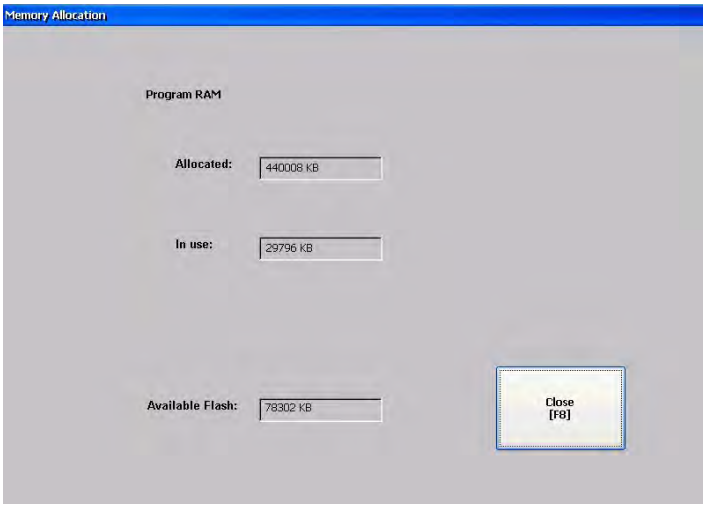
IMPORTANT Over-temperature messages are recorded in the system event log:

- 85 °C (185 °F) issues a warning message.
- 90 °C (194 °F) issues an error message.

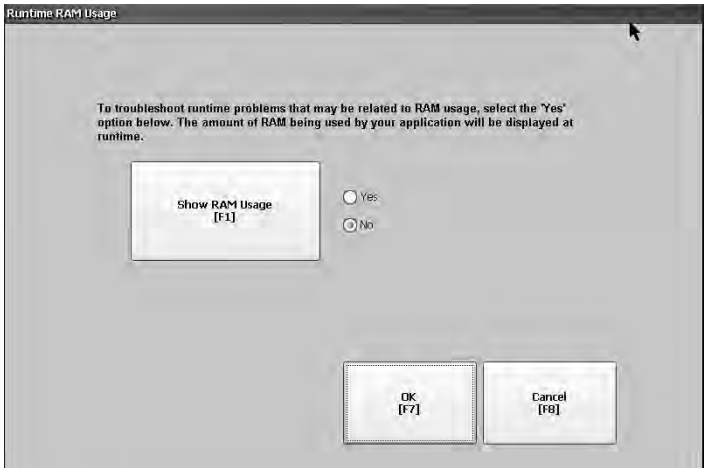
- Battery voltage must be at least 2.75V DC.

Battery State	Description
GOOD	Good battery condition.
FAILING	Low battery. Replace the battery.
BAD	Battery is missing or bad. Replace the battery.

2. Press Memory Allocation to view information for the Program RAM and Available Flash (nonvolatile) memory.



3. Press Close to return to previous dialog box.
4. Press Runtime RAM Usage to view the RAM used by the application at runtime. This can be helpful if you are troubleshooting problems related to RAM usage.

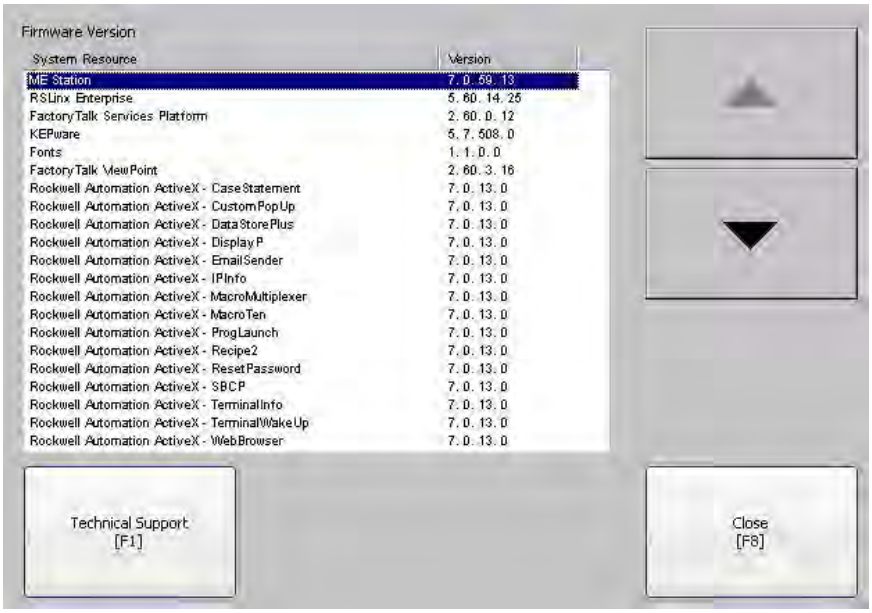

Runtime RAM Usage
To troubleshoot runtime problems that may be related to RAM usage, select the 'Yes' option below. The amount of RAM being used by your application will be displayed at runtime.
Show RAM Usage
[F1]
Yes
No
OK
[F7]
Cancel
[F8]

5. Press OK to return to the previous dialog.
6. Press Close until you return to terminal settings.

View FactoryTalk View ME Station Information

You can view firmware and version information for components installed on your terminal and access technical support information.

1. Press Terminal Settings, then choose System Information>About FactoryTalk View ME Station.


Firmware Version
System Resource
Version
ME Station 7.0.59.13
RSLinx Enterprise 5.60.14.25
FactoryTalk Services Platform 2.60.0.12
KEPware 5.7.508.0
Fonts 1.1.0.0
FactoryTalk ViewPoint 2.60.3.16
Rockwell Automation ActiveX - CaseStatement 7.0.13.0
Rockwell Automation ActiveX - CustomPopUp 7.0.13.0
Rockwell Automation ActiveX - DataStorePlus 7.0.13.0
Rockwell Automation ActiveX - DisplayP 7.0.13.0
Rockwell Automation ActiveX - EmailSender 7.0.13.0
Rockwell Automation ActiveX - IPInfo 7.0.13.0
Rockwell Automation ActiveX - MacroMultiplexer 7.0.13.0
Rockwell Automation ActiveX - MacroTen 7.0.13.0
Rockwell Automation ActiveX - ProgLaunch 7.0.13.0
Rockwell Automation ActiveX - Recipe2 7.0.13.0
Rockwell Automation ActiveX - ResetPassword 7.0.13.0
Rockwell Automation ActiveX - SBCP 7.0.13.0
Rockwell Automation ActiveX - TerminalInfo 7.0.13.0
Rockwell Automation ActiveX - TerminalWakeUp 7.0.13.0
Rockwell Automation ActiveX - WebBrowser 7.0.13.0
Technical Support [F1]
Close [F8]

2. Press Technical Support to display the support phone number and website.
3. Press Close until you return to terminal settings.

Time and Date Settings

You can change the time zone, date, time, and regional settings for terminal operations.

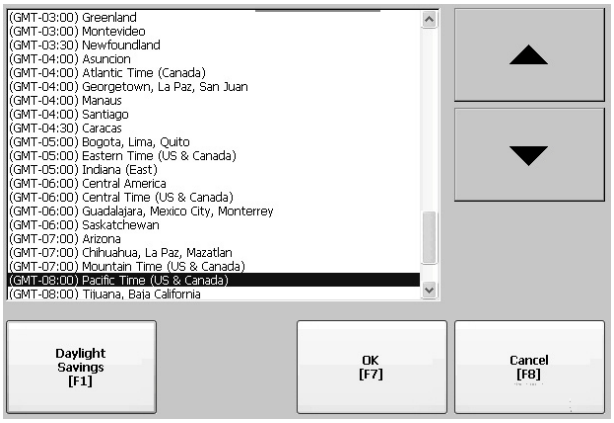
TIP Set the time zone before you change the current date and time on the terminal.

Change the Time Zone on the Terminal

You can view or modify the current time zone on the terminal. Time zones are installed with the operating system. Changing the time zone adjusts the current time and date to match the time zone.

The terminal's clock records the time when files are created or modified on the terminal. You can change the clock's time and time zone.

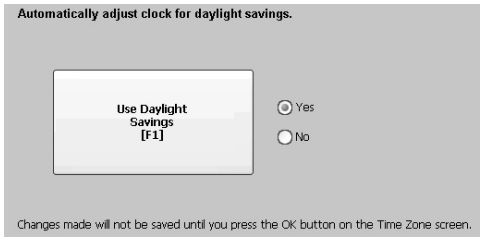
1. Select Terminal Settings, then choose Time/Date/Regional Settings>Time Zone.



2. Press the up or down cursor to select a time zone.

   Daylight Saving Time is enabled for all time zones except Japanese (Japan does not support Daylight Saving Time). The terminal's clock is adjusted automatically when Daylight Saving Time changes.

3. Optionally, press Use Daylight Savings to enable or disable Daylight Saving Time for a time zone.


Automatically adjust clock for daylight savings.
Use Daylight Savings [F1]
Yes
No
Changes made will not be saved until you press the OK button on the Time Zone screen.

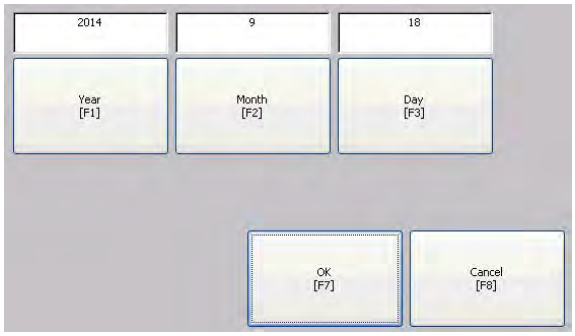
   Changes are not permanent until you close the Time Zone dialog box.

4. Press Close when done.
5. Press OK to return to the previous dialog box.

Change the Current Date on the Terminal

To adjust the date on the terminal, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Date.

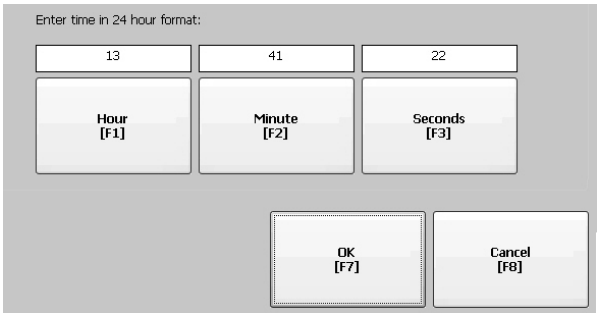


2. Press Year, Month, and Day to change the current values above the button:
   - Year is four digits in the range 1980...2099
   - Month is in the range 1...12
   - Day is in the range 1...31 and validated by month
3. Press OK when done.

Change the Current Time on the Terminal

To adjust the time on the terminal, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Time.



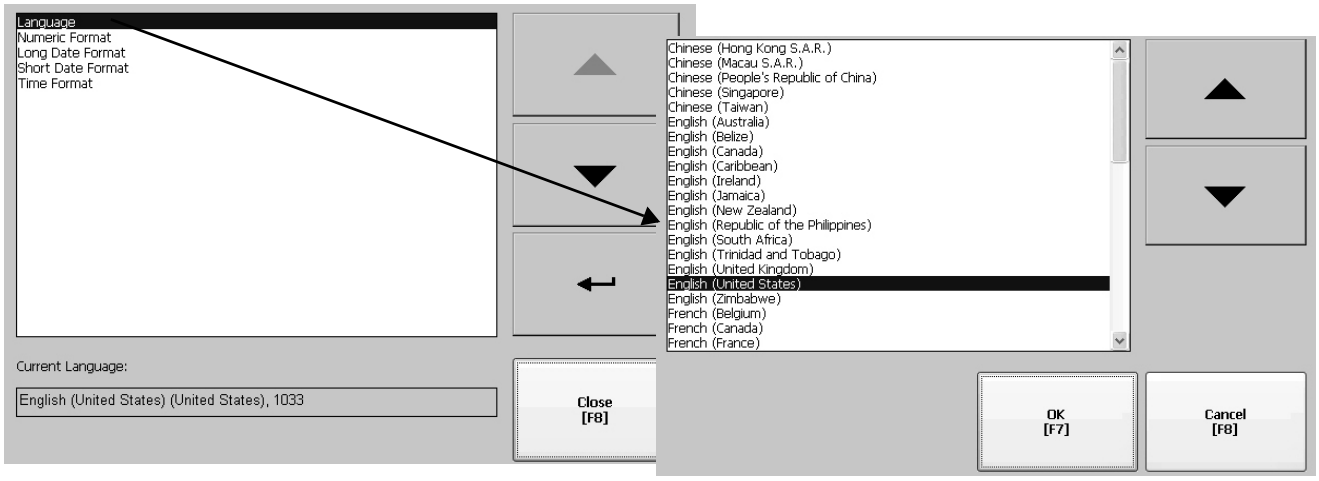
2. Press Hour, Minute, and Seconds to change the current values:
   - Hour range is 0...23 (24-hour format)
   - Minute and second range is 0...59
3. Press OK when done.

Regional Settings

You can change the format for displaying dates, times, and numerics to match the standards of a country or region. Languages are installed with the operating system. Before changing regional settings, you must select a language.

To select a language installed on the terminal, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Language.



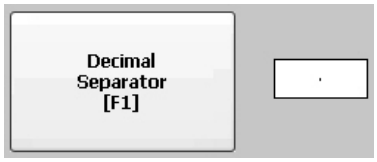
2. Select a language by pressing the up and down cursors.
3. Press OK.

   The selected language shows under Current Language on the Regional Settings dialog box.

Change the Decimal Separator

You can change the decimal separator used in numeric formats for the selected language. The default separator is a period.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Numeric Format.



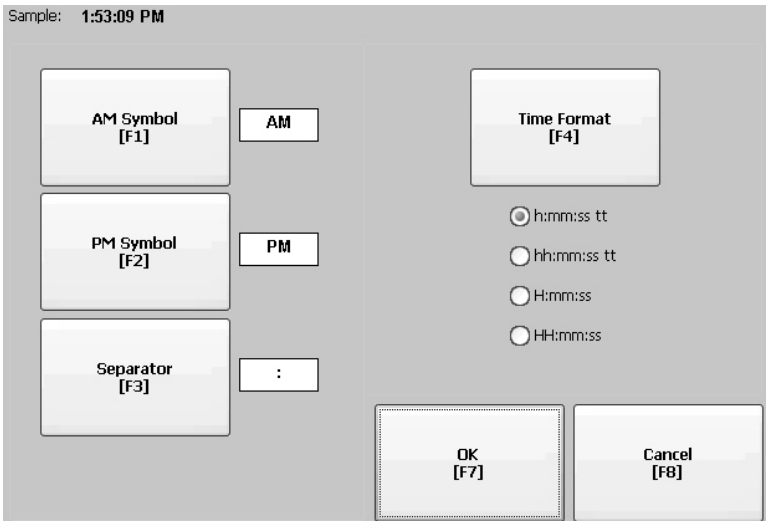
   The default separator is shown.

2. Enter a maximum of three characters for the new separator.
3. Press OK.

Change the Time Format for a Language

To change the format of the time for the selected language, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Time Format.



   The current time appears in the selected format.

2. Press the appropriate selections to adjust the formats.

   The sample format changes as you make selections.

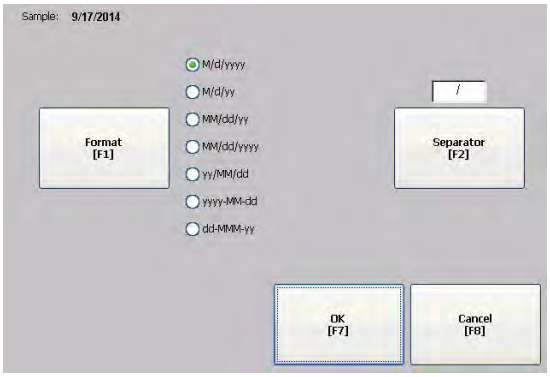
Field	Description	Example
Time Format 12-hour	h:mm:ss tt (default) h = 12-hour time display, no leading zero tt = AM or PM symbol	7:23:02 AM or 1:13:31 PM 11:43:59 AM
	hh:mm:ss tt hh = 12-hour time display with leading zero tt = AM or PM symbol	07:23:02 AM or 01:13:31 PM 11:43:59 PM
Time Format 24-hour	H:mm:ss H = 24-hour time display, no leading zero	7:03:42 or 1:13:32 23:43:59
	HH:mm:ss HH = 24-hour time display with leading zero	07:03:42 or 01:13:22 23:43:59
AM Symbol	Characters to indicate AM. If the time format is set to a 12-hour time display (h:mm:ss tt or hh:mm:ss tt), you can modify the AM symbol.	AM (default) 12 character max
PM Symbol	Characters to indicate PM. If the time format is set to a 12-hour time display (h:mm:ss tt or hh:mm:ss tt), you can modify the PM symbol.	PM (default) 12 character max
Separator	Characters that separate fields in time format.	: (default) 3 character max

3. Press OK.

Change the Short Date Format for a Language

To change the short date format for the selected language, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Regional Settings>Short Date Format.



2. Press Format to change the short date format.

   The date updates in the Sample area as you make changes.

3. Press Separator to change the character between date elements.

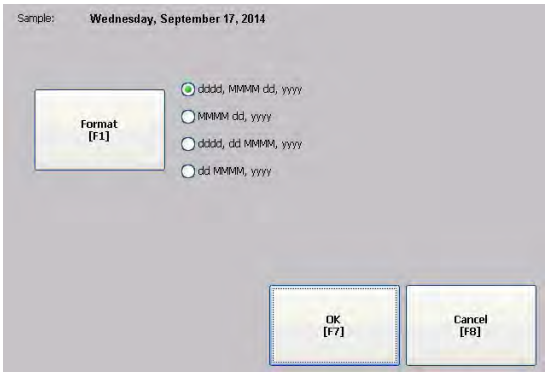
   The separator can be three characters. The default separator is – or /.

4. Press OK when done.

Change the Long Date Format for a Language

To change the long date format for the selected language, follow these steps.

1. Select Terminal Settings, then choose Time/Date/Regional Settings>Regional Settings>Long Date Format.



2. Press Format to change the long date format.

   The date updates in the Sample area as you make changes.

3. Press OK when done.

Windows Operating System

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Operating System Features

The PanelView Plus 7 terminal runs the Microsoft Windows CE version 6.0 operating system (OS) providing the following features:

- Command shell
- Command processor
- Console window
- Windows Explorer shell
- Common dialog box
- Control panel
- Network user interface
- Soft keyboard input panels
- PDF reader
- Mouse and touch screen support with right-click support.

  TIP Touch the screen for one second or longer for a right-click.

- VNC server and client viewer

IMPORTANT The terminal distributes two VNC client viewers:

- Vncviewer.exe is in the /Windows folder on the terminal desktop. You can deploy this viewer to a personal computer for connecting, viewing, and controlling a PanelView Plus 7 terminal.
- Another viewer on the terminal lets you establish a VNC connection to another PanelView Plus 7 terminal. To access this viewer, click Start>Programs>VNC Viewer.

Application Support

The Windows CE operating system provides the following application support:

- .NET Compact Framework, version 3.5 or later
- C++ libraries and runtimes
- Component services DCOM/COM/OLE
- Message queueing MSMQ
- MSXML, version 3.0 or later
- Microsoft foundation classes (MFC) for devices, version 9.0 or later
- Active template library (ATL)
- ActiveSync
- Cabinet (CAB) file installer/uninstaller
- ToolHelp application programming interface (API)
- Error reporting (generator, transfer driver, control panel)

Scripting Support

The Windows CE operating system supports these scripting features:

- Batch/Command (BAT and CMD files)
- CS-Script
- JScript

Network Support

The Windows CE 6.0 operating system supports these network features:

- Winsock support
- Network utilities – ipconfig, ping, route
- Network driver architecture (NDIS)
- Windows networking API/Redirector
- Wired Local Area Network (LAN), 802.3, 802.5

Server Support

This table lists servers supported by the Windows CE 6.0 operating system.

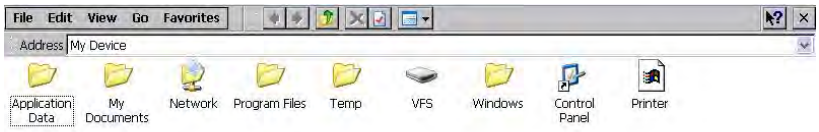
Table 20 - Windows CE 6.0 Server Support

Server	Default State	Description
Web server	Enabled	The web server delivers content, such as web pages, by using the HTTP protocol over the Web.
FTP server	Enabled	File transfer protocol (FTP) is a standard network protocol for exchanging files over the Internet (TCP/IP-based network).
UPnP server	Enabled	Universal plug and play (UPnP) is a set of networking protocols that lets devices install and connect to a network.
File server	Enabled	A network protocol that provides shared access to files, printers, serial ports, and miscellaneous communication between computers on a network.
VNC server	Disabled	Virtual network computing (VNC) is remote-control software that makes it possible to control another computer over a network connection. Keystrokes and mouse clicks are transmitted from one computer to another, over a network.
ViewPoint server	Enabled	A web server application that provides remote users access via a web browser to the FactoryTalk View ME HMI application that is running on the terminal. ViewPoint software is a Rockwell Automation product.

Windows Explorer

From the desktop, you can access Windows Explorer in several ways:

- Double-click the My Device icon.
- Choose Start>Programs>Windows Explorer.



A few folders contain items specific to the PanelView Plus 7 Standard terminal.

Folder	Content
Application data	Contains FactoryTalk View ME application files. Path: \Application Data\Rockwell Software\RSViewME\Runtime
VFS (virtual file system)	Contains firmware files and backup/restore files for the current system image. Paths: \VFS\Platform Firmware and \VFS\Backup & Restore

Taskbar

From the taskbar, you can access the Start menu, device IP information, the current language and time, input panels, and open programs.

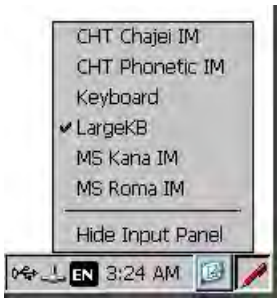
To turn the taskbar on or off, choose Start>Settings>Taskbar and Start Menu, then clear or check the Auto Hide checkbox.

TIP Touch the bottom of the display to recover the taskbar when in Auto Hide mode.

Soft Input Panels

The operating system offers different input panels for entering data. You can access these input panels from the taskbar or the control panel. From the taskbar, click the input panel icon and choose the on-board keyboard you want to use:

- CHT Chajei IM (Chinese)
- CHT Phonetic IM (Chinese)
- Keyboard (small keyboard)
- LargeKB (large keyboard)
- MS Kana IM (Japanese)
- MS Roma IM (Japanese)
- Hide Input Panel (closes the keyboard)



TIP The input panel icon changes depending on which input panel you select.

Windows Control Panel

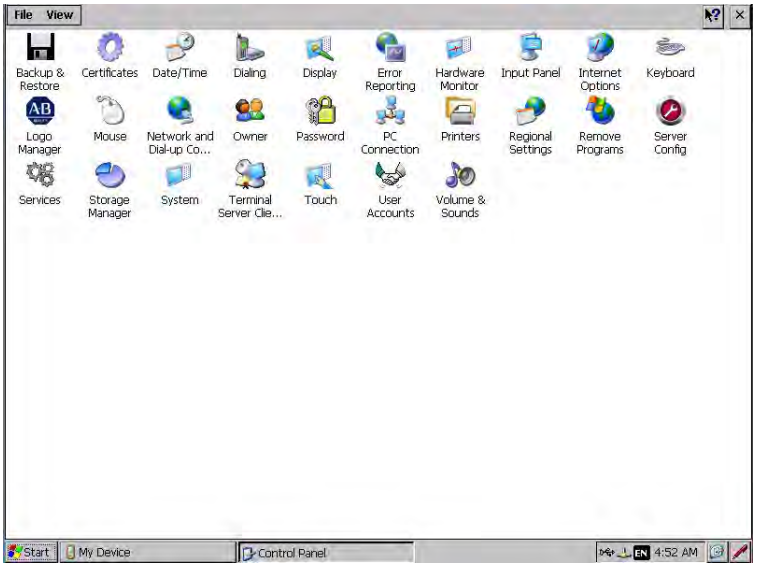
Applications in the Windows control panel let you view and configure system and terminal settings. For example, you can monitor hardware performance, calibrate the touch screen, or adjust screen saver settings.

TIP Most terminal settings are also available in FactoryTalk View ME Station Configuration mode.

The language of the control panel applications is based on the language set for the operating system. English is the default.

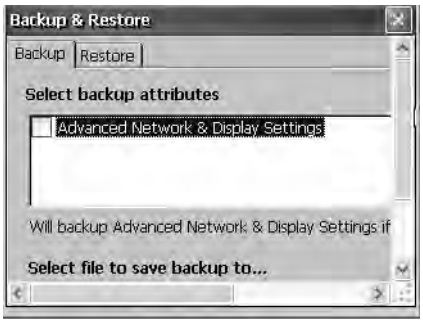
You can access the control panel in several ways:

- Choose Start>Settings>Control Panel.
- Open My Device on the desktop, then double-click Control Panel. This chapter covers control panel applications specific to the terminal.



TIP From the View menu, you can change the size of the icons or see a brief description of each.

TIP Many control panel applications have scroll bars for viewing information on a smaller display, however, most examples show the full view for clarity.



Backup and Restore

The Backup and Restore application lets you copy the current system image on the terminal, then restore that image to the same terminal or other terminals. This function is useful if you want to clone a system image to multiple terminals.

TIP You can back up a system image to a USB drive or SD card. Rockwell Automation recommends using a USB drive or SD card with a minimum of 1 GB of available space. For applications with a large file system, use a minimum of 2 GB of available space.

A typical backup includes the following:

- File system
- Firmware image
- Windows registry
- Optional user configuration data

You can include user configuration data in the backup by selecting the Advanced Network & Display Settings checkbox in the Backup & Restore dialog box.

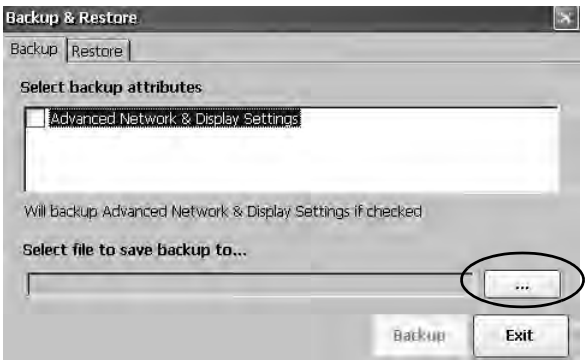
Table 21 - Advanced Network and Display Settings

Setting	Description
Ethernet network	• DHCP-enabled or fixed IP address • Primary and secondary DNS • Primary and secondary WNS • Speed and duplex settings
USB network	USB IP address and subnet mask, Gateway, DHCP-enabled or fixed IP address
Network	Device name
Display	• Display brightness • Screen saver dimmer timeout

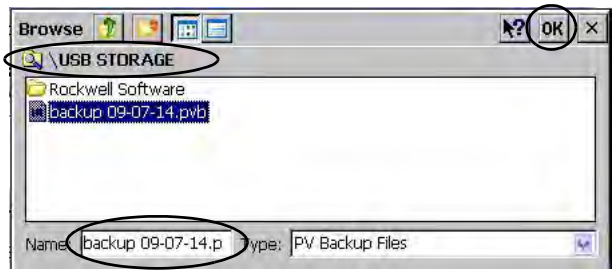
Perform a Backup

To perform a backup, follow these steps.

1. Insert a USB drive or SD card into the appropriate slot on the terminal.
2. In the control panel, double-click the Backup & Restore icon.

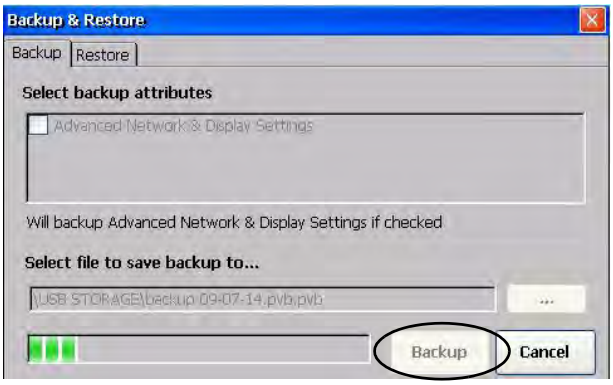


3. Click the browse **...** button on the Backup tab.



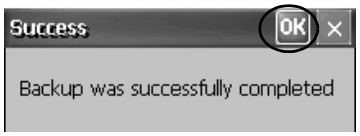
4. Select the target location for the back-up file:
   - USB Storage if you are using a USB drive
   - Storage Card2 if you are using an SD card
5. Type a name for the back-up file.

   Back-up files have the .pvb file type.
6. Click OK.



7. Click Backup to start the process.

A progress bar shows the status of the operation. The backup can take a few minutes. You receive notification when the backup completes.



8. Click OK.

   If the file exists, you are asked if you want to overwrite the current file.

9. Click Exit to close the Backup & Restore dialog box.

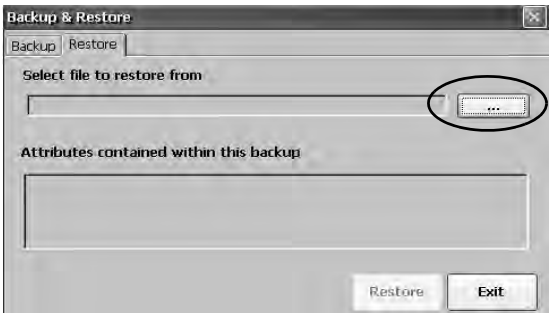
TIP You can verify the .pvb file was successfully created by double-clicking My Device and selecting the target location for the backup. If the .pvb file was not successfully created, use a USB drive or SD card with more available space.

Rockwell Automation recommends using a USB drive or SD card with a minimum of 1 GB of available space. For applications with a large file system, use a minimum of 2 GB of available space.

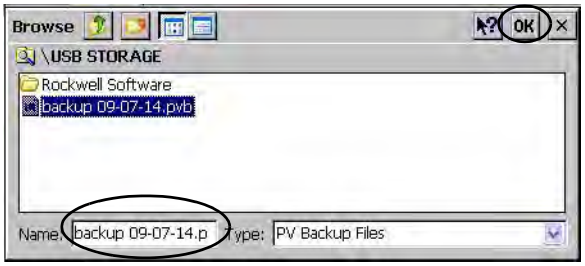
Restore a Back-up Image

To restore or clone a back-up image to storage device, follow these steps.

1. Insert the USB drive or SD card into the appropriate slot of the target device.
2. In the control panel, double-click Backup & Restore.



3. Click the Restore tab.
4. Click the...browse button to select the back-up file to restore.



5. Select the location of the back-up file:
   - USB Storage if you are using a USB drive
   - StorageCard2 if you are using an SD card
6. Select the .pvb back-up file to restore.
7. Click OK.

8. Click Restore.

   The restore automatically includes advanced network and display settings if you selected this option when performing the backup.

9. Click Yes to start the restore process.

   The terminal starts the restore process that takes a few minutes.

IMPORTANT Do not remove the USB drive, SD card, or power off the terminal during a restore. This can corrupt the firmware.

If the restore fails, reset the terminal from the maintenance menu. Refer to Maintenance Mode Operations on page 137 for details.

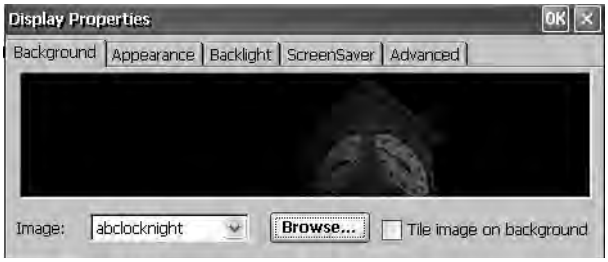
When the restore completes successfully, the terminal restarts.

Display Properties

Use Display Properties to control the desktop background image and appearance, the brightness of the backlight, and screen saver settings.

Desktop Background

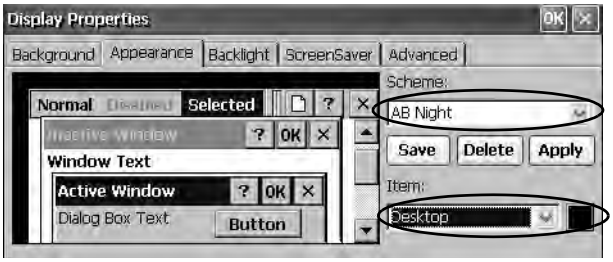
The Background tab in Display Properties controls the background bitmap on the desktop. The default bitmap is 'abclocknight'.



You can select another image from the pull-down menu or browse the system for a bitmap image. Some custom images are in the \Windows folder.

Desktop Appearance

The Appearance tab in Display Properties controls the visual style and colors of the desktop and other window elements.

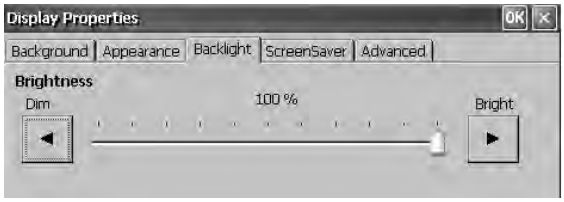


Two custom schemes and images provide for day or night viewing. When changing schemes, remember to also change the image on the background tab.

Scheme	Desktop Color	Background Logo
AB Day	Blue	ablclockday
AB Night	Black	abclocknight

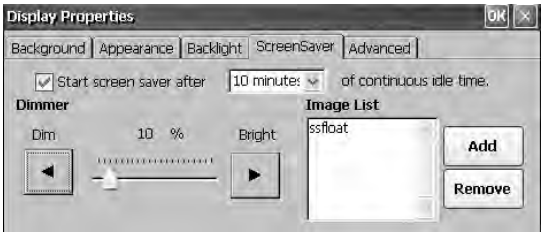
Backlight Intensity

The Backlight tab in Display Properties lets you set the brightness level of the display between 1...100%. At 1% the display is minimally visible.



Screen Saver

The screen saver extends the life of the display. When the terminal is idle for a continuous period, the screen saver dims the backlight and displays a moving image. When deactivated, the display brightness returns to its normal level.



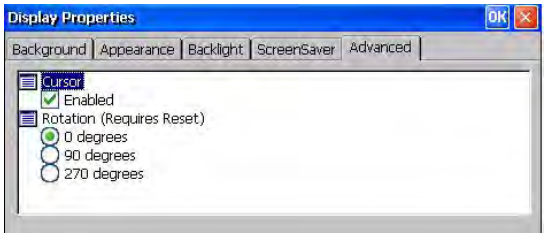
The Screen Saver tab in Display Properties lets you perform these actions:

- Change the idle timeout for the screen saver. The default is 10 minutes.

  When the screen saver activates, the dimmer controls the backlight intensity. You set the brightness of the dimmer in range 0...100%. The default intensity is 10%. At 0% the backlight is minimally visible.
- Browse the system for a different screen saver bitmap. The default screen saver is SSFloat.bmp. Click Add or Remove to change screen saver bitmap. The system recognizes bitmaps in the \Windows folder.
- Disable the screen saver by clearing the Start screen after checkbox.

Cursor

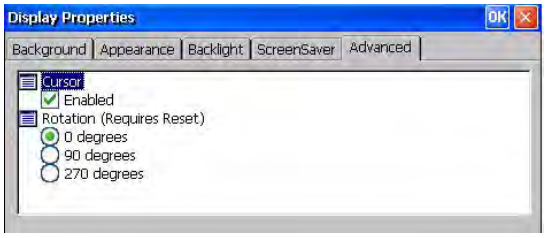
The Advanced tab in Display Properties lets you enable or disable the visible cursor that you see on the display. The cursor is visible by default.



Screen Rotation

IMPORTANT The PanelView Plus 7 Standard terminals are not supported in portrait mode (90 degrees or 270 degrees) in FactoryTalk View Machine Edition applications.

The Advanced tab in Display Properties lets you rotate the screen on the terminal. The default is 0 degrees.



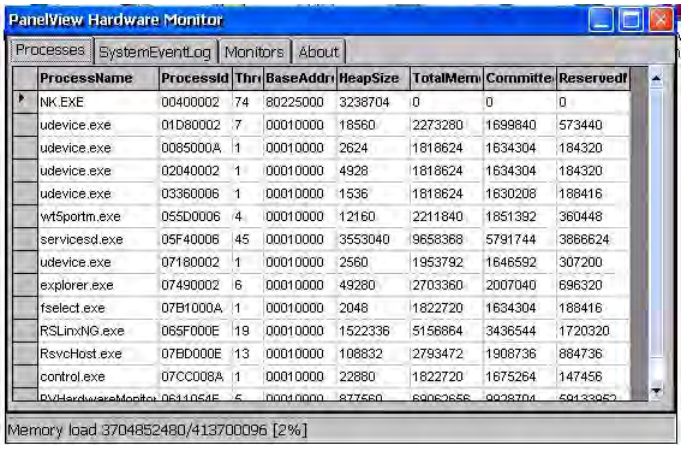
After you change the screen rotation you have to calibrate the touch screen.
1. Plug in a USB mouse to the terminal.
2. Reboot the terminal.
3. Use the mouse to calibrate the touch screen.
4. See Calibrate the Touch Screen on page 60 for calibration details.

Hardware Monitor

The Hardware Monitor provides status and troubleshooting information for the terminal. You can view running processes, system event log, battery voltages, current temperature, CPU load, and memory load.

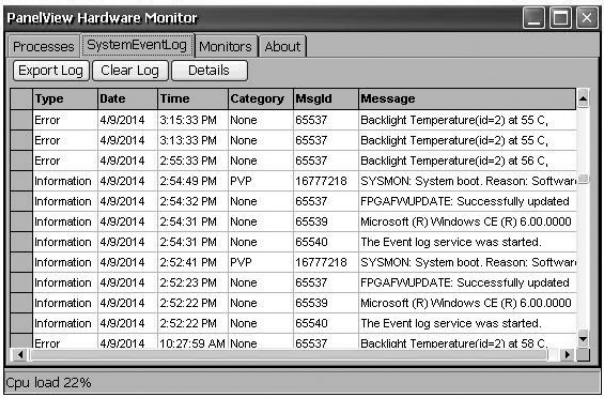
Processes

The Processes tab in the Hardware Monitor shows all processes running on the terminal and memory usage of each process.



System Event Log

The System Event Log in the Hardware Monitor shows warnings, errors, and events logged by the terminal.

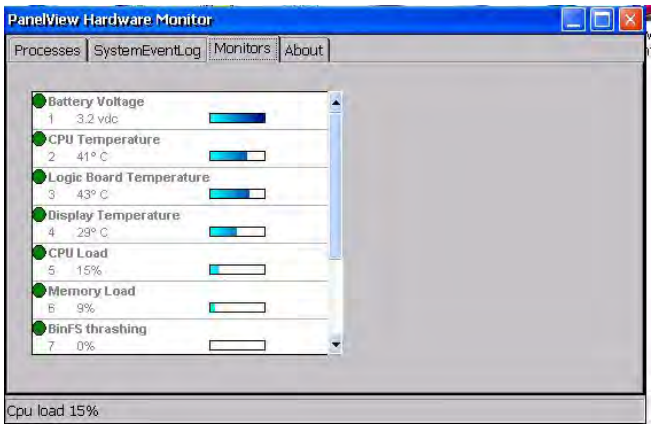

PanelView Hardware Monitor
Processes
SystemEventLog
Monitors
About
Export Log
Clear Log
Details
Type Date Time Category Msgld Message
Error 4/9/2014 3:15:33 PM None 65537 Backlight Temperature(id=2) at 55 C,
Error 4/9/2014 3:13:33 PM None 65537 Backlight Temperature(id=2) at 55 C,
Error 4/9/2014 2:55:33 PM None 65537 Backlight Temperature(id=2) at 56 C,
Information 4/9/2014 2:54:49 PM PVP 16777218 SYSMON: System boot. Reason: Softwar
Information 4/9/2014 2:54:32 PM None 65537 FPGAFWUPDATE: Successfully updated
Information 4/9/2014 2:54:31 PM None 65539 Microsoft (R) Windows CE (R) 6.00.0000
Information 4/9/2014 2:54:31 PM None 65540 The Event log service was started.
Information 4/9/2014 2:52:41 PM PVP 16777218 SYSMON: System boot. Reason: Softwar
Information 4/9/2014 2:52:23 PM None 65537 FPGAFWUPDATE: Successfully updated
Information 4/9/2014 2:52:22 PM None 65539 Microsoft (R) Windows CE (R) 6.00.0000
Information 4/9/2014 2:52:22 PM None 65540 The Event log service was started.
Error 4/9/2014 10:27:59 AM None 65537 Backlight Temperature(id=2) at 58 C,
Cpu load 22%

The log provides a date and time stamp of each event and text describing the event. The maximum size of the log is 1 MB, approximately 4,000 records. If the log exceeds 1 MB, the oldest 512K of information is removed. You can perform the following operations on the log file:

- Press Export Log to export the log file to a CSV file (*.csv) in the \Windows folder. The default file name is SystemLog.csv.
- Press Clear Log to clear all events from the log.
- Press Details to view more details on a selected event.

Monitors

The Monitors tab in the Hardware Monitor provides continuous voltage, temperature, and load information for the terminal.



Battery Voltage

The Monitors tab gives a visual status and voltage reading of the battery for the real-time clock. The battery voltage is read at power-up.

Table 22 - Battery Conditions

Condition	Battery
Depleted	Less than 2.0V indicates a dead battery or no power.
Low	2.0…2.74V
Normal	2.75V or higher

An event is logged to the system event log for a low or depleted battery.

Temperatures

The Monitors tab gives a visual status and reading of the current temperature of the logic board. The temperature updates every ten minutes.

Table 23 - Temperature Conditions

Condition	Logic Board
Low	–
Normal	25…94 °C (77…201 °F)
High	95 °C (203 °F) and higher

An event is logged to the system event log for a failed temperature sensor.

IMPORTANT A high temperature condition causes an automatic restart attempt. Restart attempts continue indefinitely until the system is cool enough to resume normal operation. High temperature conditions are logged to the system event log.

Logo Manager

Use the Logo Manager to change the logo that appears on the splash screen at startup and the default screen saver image. The default splash-screen image is the Allen-Bradley logo (ablogo.bmp).

The logo can be a .bmp, .jpg, .gif, or .png image. A 90 x 90 pixel, 16-bit color image provides the best results.

Before applying the new logo, you can do the following:

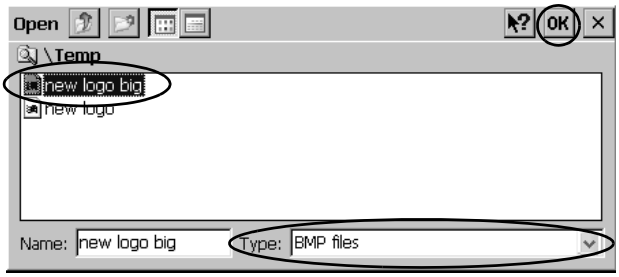
- Preview the logo on the splash screen.
- Resize image to fit the fixed area of the splash screen.

To apply a new logo the splash screen and the screen saver, follow these steps.

1. Double-click Logo Manager in the control panel.

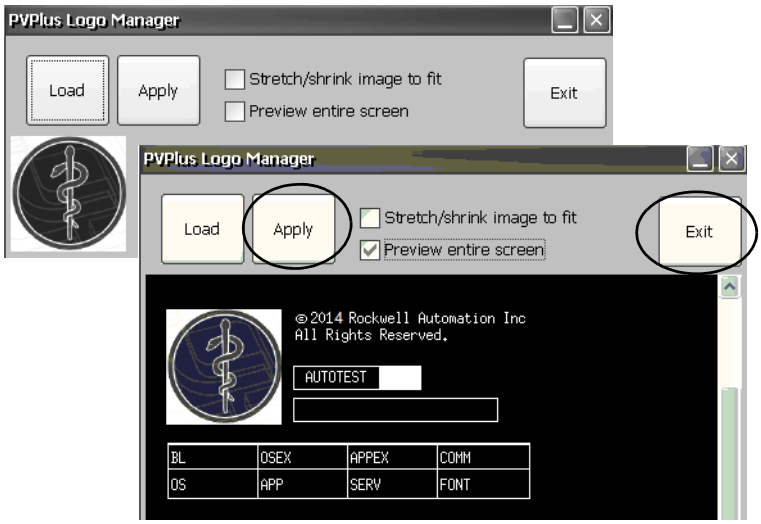
   The Logo Manager opens with the current logo.

2. Click Load.



3. Select the location of the new image you want to load:
   - A folder on the terminal.
   - Storage Card2 – SD card
   - USB Storage – USB drive
4. Select the image file to load.
5. Verify the file type is correct.
6. Click OK.

   The new logo appears in the Logo Manager dialog box.



7. Check 'Preview entire screen' to view the logo on the splash screen.

   If the logo is truncated or too small, check 'Stretch/shrink image to fit' to resize the logo to fit the area.

8. If satisfied with the preview, click Apply.

   A dialog box confirms the splash screen was updated. The default screen saver, ssfloat.bmp, is updated with the new image.

9. Click OK, then click Exit to close the Logo Manager.

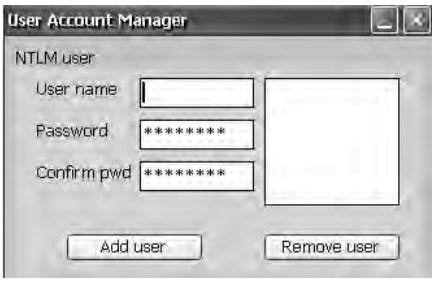
User Accounts

User Accounts let you set up NT LAN manager (NTLM) user accounts for authenticating client connections when using the FTP, web, and file servers. A user account consists of a user name and a password.

TIP NTLM is the security protocol that provides authentication, integrity, and confidentiality to users on Windows operating systems. NTLM is still included to support Windows 2000, 2002, and 2003 server systems.

To add a user account, follow these steps.

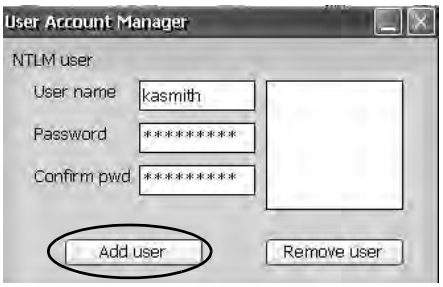
1. Double-click User Accounts in the control panel.



2. Click in the user name filed and type a name.
3. Click in the Password field to clear the field and type a password.

   Asterisks display as you type the password.

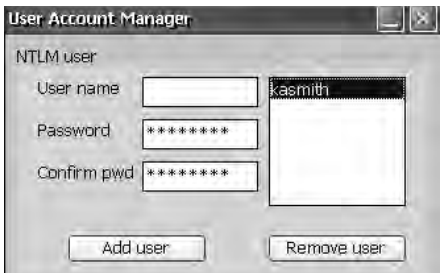
4. Re-enter the password in the Confirm pwd field.



5. Click Add User.

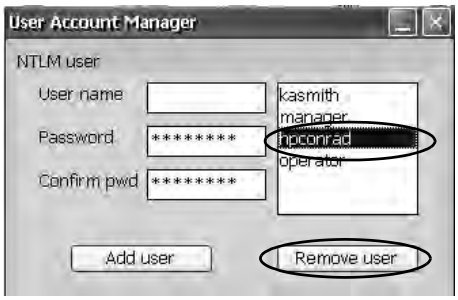
6. Click OK to acknowledge the new user account.

   The new user name is added to the list.



7. Repeat steps 1 through 6 to add additional user accounts.
8. When done, click X to close the dialog box.

To remove a user account, follow these steps.



1. Select a name from the user name list.
2. Click Remove User.

3. Click Yes to confirm the removal of the selected user account.

   The user account list is permanently deleted from the list.
4. Click X to close the User Account Manager.

TIP Users entered in authentication lists of FTP, web, or file server configurations are removed when user accounts are deleted.

Services

The Services application shows servers the PanelView Plus 7 Standard terminal supports. You can enable (start) or disable (stop) each server.

The buttons are color coded:

- Green indicates the server is running and automatically started at system startup.
- Red indicates the server is not running.
- Gray indicates the server is not available on the terminal.

To enable or disable a server, press the corresponding button and the color changes accordingly.

Network Server Configuration

The Network Server Configuration application configures settings for VNC, FTP, web, Kepware, and file server activities on an Ethernet network.

VNC Server Configuration

The terminal provides two VNC client viewers:

- Vncviewer.exe is in the /Windows folder on the terminal desktop. You can deploy this viewer to a personal computer for connecting, viewing, and controlling a PanelView Plus 7 terminal. See these sections for details:
  - VNC Connection Requiring a Password for View-only Operations on page 92
  - VNC Connection with Separate Passwords for View and Control Operations on page 93
- Another viewer on the terminal lets you establish a VNC connection to another PanelView Plus 7 terminal. To access this viewer, click Start>Programs>VNC Viewer. See these sections for details:
  - Establish a VNC Connection Between a Local Terminal and a Remote Terminal on page 95
  - Close a VNC Connection to a Remote Terminal on page 97
  - Make a New VNC Connection to a Remote Terminal on page 97
  - Transfer Files Between a Local and a Remote Terminal on page 98

The VNC Server tab in the Network Server Configuration dialog box configures settings for a client device to view or control the terminal over a VNC connection.

TIP Click OK in the title bar of the dialog box to apply new settings. You are asked if you want to restart the service immediately.

Table 24 - VNC Server Parameters

VNC Parameter	Description	Default
General		
View Only (no remote control)	Check this option to let users view terminal displays over a VNC connection. If you uncheck View Only, users can both control and view terminal displays over a VNC connection. If security is disabled, users are not required to enter a password when connecting to the terminal.	Enabled for view only
Security		
Enable security	Check this option to require password protection for VNC connections to the terminal. This means users must enter a valid password before viewing or controlling terminal displays. If you enable security, you must supply a password for one of these parameters: • Password - for control and view operations • View-only password - for view only operations	Disabled (unchecked)
Password	Specifies a password a user must enter when establishing a VNC connection to control terminal displays. Select the box, then type a password in the field at the bottom of the dialog box. The password is a maximum of seven characters. Password protection is required to control terminal displays if: • View Only is unchecked (allowing control access) • Security is enabled	No password
View-only password	Specifies a password a user must enter when establishing a VNC connection to view terminal displays. Select the box, then type a password in the field at the bottom of the dialog box. The password is a maximum of seven characters. **TIP**: If you uncheck the View Only parameter, you have control and view access to the terminal. With control access enabled, you can restrict one or more users to view-only access by providing a View-only password. View-only password protection is required to view terminal displays if security is enabled: • View Only is checked or unchecked • Security is enabled	No password

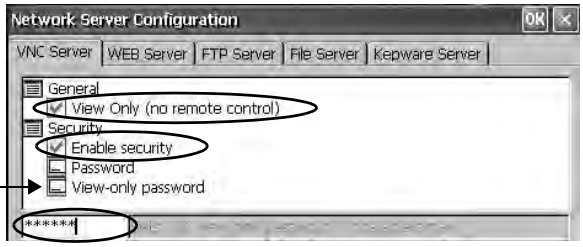
VNC Connection Requiring a Password for View-only Operations

The default VNC configuration enables view-only access to the terminal without requiring a password. This configuration requires the VNC viewer that you copy from your terminal to a computer.

TIP Copy vncviewer.exe, in the /Windows folder on the terminal, to your computer and install the TightVNC software.

To configure a VNC connection that requires a password for viewing terminal displays, follow these steps.

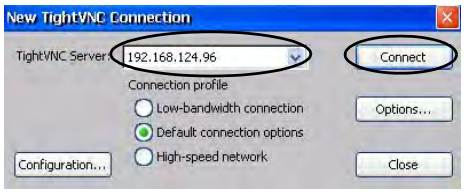
1. From the control panel, click Server Config.



2. On the VNC Server tab, check the following:
   - View only (no remote control)
   - Enable security
3. Select View-only password, then enter a seven-character password in the field that opens.
4. Click OK, then restart the server when prompted to apply new settings.

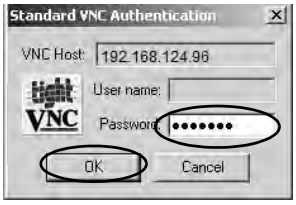
To launch a VNC connection to view terminal operations, follow these steps.

1. On your computer, choose Start>Programs>TightVNC>TightVNC Viewer.



2. Enter the IP address of your terminal and click Connect.

TIP Click the network connection icon in the system tray to view the IP address of the terminal.



3. Enter the View-only password defined on the terminal and click OK.

   The PanelView VNC Server opens the current view of the terminal on your desktop. You can view but not control terminal operations.
4. When finished, close the PanelView VNC Server.

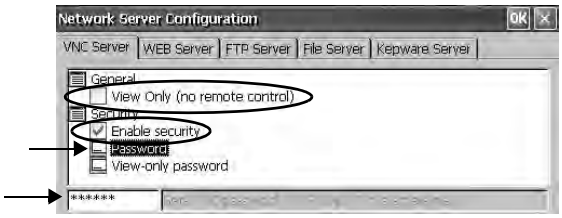
VNC Connection with Separate Passwords for View and Control Operations

You can configure the VNC server to require separate passwords for view-only and control operations. This example uses the VNC viewer deployed to a computer to connect to the terminal.

TIP Copy vncviewer.exe, in the /Windows folder on the terminal, to your computer and install the TightVNC software.

To configure the VNC server to require a separate password for view-only and control operations, follow these steps.

1. From the control panel, click Server Config.



2. On the VNC Server tab, do the following:
   - Clear View only (no remote control).
   - Check Enable security.
3. Select Password, then enter a password for control privileges.

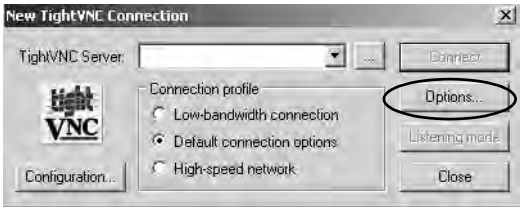
   Passwords are a maximum of seven characters.

4. Select View-only password, then enter a password for view-only privileges.
5. Click OK, then restart the service when prompted to apply new settings.

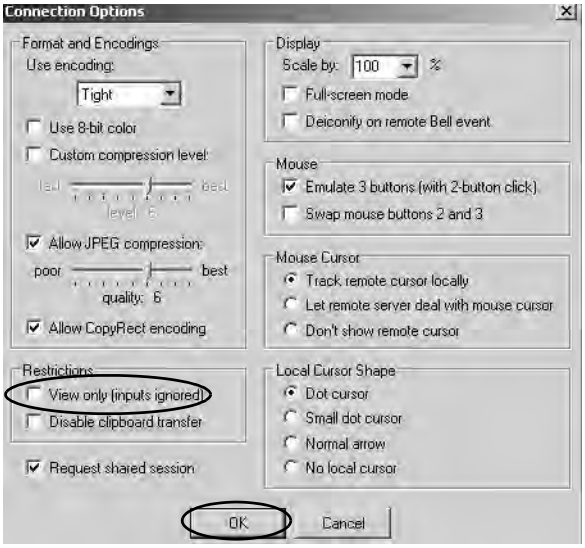
To launch a VNC connection to enable control of the terminal, follow these steps.

TIP To launch a VNC connection on your computer that requires a password for view-only operations, see VNC Connection Requiring a Password for View-only Operations on page 92 and follow steps 1 through 4.

1. On your computer, choose Start>Programs>TightVNC>TightVNC Viewer.



2. Click Options.

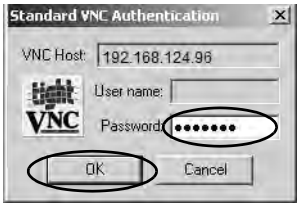


3. Clear View only (inputs ignored).
4. Click OK.

5. Enter the IP address of your terminal and click Connect.

TIP Click the network connection icon in the system tray to view the IP address of the terminal.

The Standard VNC Authentication dialog box opens.



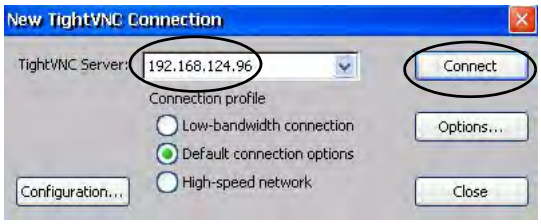
6. Enter the control password defined on the terminal and click OK.
7. On your computer, perform some actions to verify that you have control of the terminal.
8. When finished, close the PanelView VNC Server.

Establish a VNC Connection Between a Local Terminal and a Remote Terminal

To establish a VNC connection from a local terminal to a remote terminal, follow these steps.

1. Access the Windows desktop of the local terminal.

2. On the local terminal (viewer) desktop, choose Start>Programs>VNC Viewer.



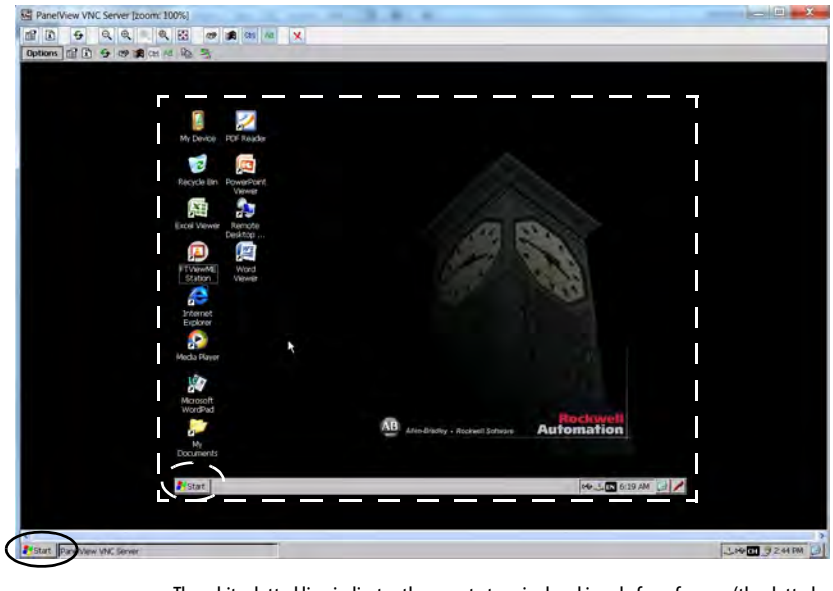
3. Enter the IP address of the remote terminal that you want to connect to and click Connect.

TIP Select an IP address from the pull-down menu, or enter an IP address by using a USB keyboard or soft input panel (see Soft Input Panels on page 78).

A Status message displays while the connection is being made. The messages can cycle as the status changes.

The message 'Please wait - initial screen loading' can also display after the connection has been made and while the desktop of the remote terminal is loading.

After the screen has loaded, the desktop of the remote terminal displays on the local terminal. You can now access the features and functions of the remote terminal.



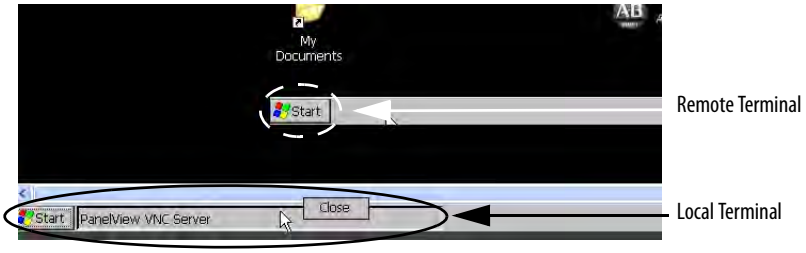
The white dotted line indicates the remote terminal and is only for reference (the dotted line does not actually appear on the local terminal).
Note the two Start buttons: circled in white is the remote terminal; circled in black is the local terminal.

Close a VNC Connection to a Remote Terminal

To close a VNC connection between a local terminal and a remote terminal, follow these steps.

1. Establish a VNC connection from a local terminal to a remote terminal (see page 95).
2. On the local terminal, right-click PanelView VNC Server.

   TIP Touch the screen for one second or longer for a right-click.



4. Click Close.

   The VNC connection to the remote terminal is closed.

   TIP Click PanelView VNC Server to toggle between the remote terminal (server) and local terminal (viewer) views.

Make a New VNC Connection to a Remote Terminal

To make a new VNC connection to a different terminal, follow these steps.

1. Establish a VNC connection from a local terminal to a remote terminal (see page 95).
2. Click the New connection icon in the menu bar.

3. Enter the IP address of the new remote terminal that you want to connect to and click Connect.

   TIP Select an IP address from the pull-down menu, or enter an IP address by using a USB keyboard or soft input panel on the local terminal (viewer) (see Soft Input Panels on page 78).

   The local terminal creates a VNC connection to the new terminal.

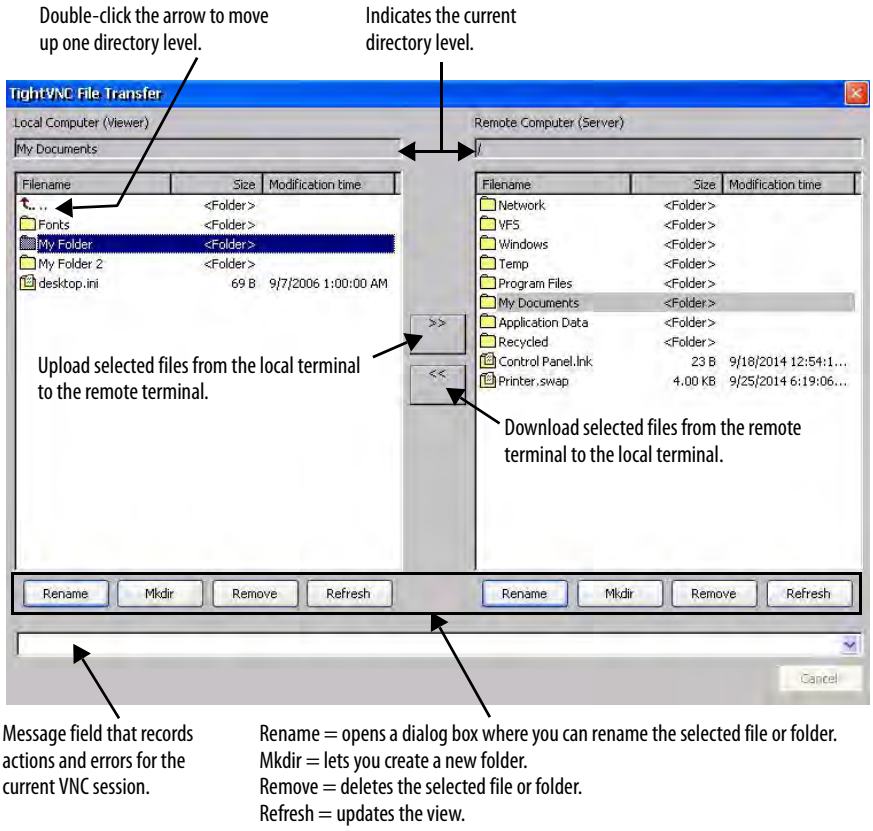
Transfer Files Between a Local and a Remote Terminal

The TightVNC File Transfer dialog box lets you perform these tasks:

- Transfer files and folders between connected terminals
- Rename a selected file or folder
- Create a folder
- Delete a selected file or folder

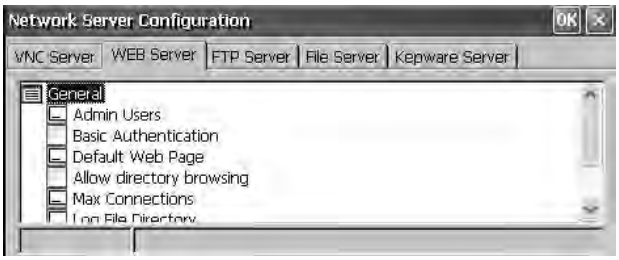
To transfer files between the local terminal and the remote terminal, follow these steps.

1. Establish a VNC connection from a local terminal to a remote terminal (see page 95).
2. Click the Transfer files icon in the menu bar.
3. Select the folder or files that you want to transfer.
4. Click the upload (>>)or download (<<)files icon.
5. Click Yes.
6. Click Refresh to view the change (in needed).


Double-click the arrow to move up one directory level.
Indicates the current directory level.
TightVNC File Transfer
Local Computer (Viewer)
Remote Computer (Server)
My Documents
/
Filename
Size
Modification time
Upload selected files from the local terminal to the remote terminal.
Download selected files from the remote terminal to the local terminal.
Rename
Mkdir
Remove
Refresh
Cancel
Message field that records actions and errors for the current VNC session.
Rename = opens a dialog box where you can rename the selected file or folder.
Mkdir = lets you create a new folder.
Remove = deletes the selected file or folder.
Refresh = updates the view.

Web server Configuration

The web server tab in the Network Server Configuration application configures settings that are used for HTTP web activities. These are standard Microsoft Windows CE parameters.



TIP Click OK in the title bar of the dialog box to apply new settings. You are asked if you want to restart the service immediately.

Table 25 - Web server Parameters

Parameter	Description	Default
Admin Users	Specifies a list of users allowed to administer web activities. When selected, enter a list of user names, separated by semicolons, in the field that opens at the bottom of the dialog box.	ADMIN
Basic Authentication	Check this option to require a user name and password to access the web server.	Disabled (unchecked)
Default Web Page	Specifies default web pages users can access.	default.htm; index.htm
Allow Directory Browsing	Check this option to let users browse directories on a web server.	Disabled (unchecked)
Max Connections	Specifies the maximum number of incoming web connections.	256
Log File Directory	Specifies the path where the log file is stored. This file logs web activity.	\windows\www
Max Log Size	Specifies the maximum size of the log file stored in the log file directory. A new log file is created, when the current log file reaches its maximum size.	32768 bytes
NTLM Authentication	Check this option to require a valid user name and password to access the web server. If NTLM Authentication is enabled, you must enter a valid user name in the Admin Users field. NTLM user accounts are defined in the User Account Manager of the control panel.	Enabled (checked)

FTP Server Configuration

The FTP Server tab in Network Server Configuration defines settings that are used for exchanging files over a network. These are standard Microsoft Windows CE parameters.

The default FTP configuration lets any user establish an FTP connection to the terminal by logging in anonymously and downloading files from the FTP default directory (\Temp).

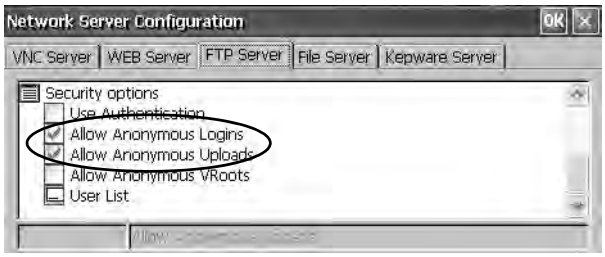
TIP Click OK in the title bar of the dialog box to apply new settings. You are asked if you want to restart the service immediately.

Table 26 - FTP Server Parameters

FTP Parameters	Description	Default
General		
Default Directory	Specifies a storage location on your terminal for transferring files. This is the directory that users come to when they first connect to the FTP server.	\Temp\
Idle Timeout	Specifies an idle period after which inactive control connections are closed during a data transfer. An FTP session requires one control connection, plus one data connection, during file transfers. Without a timeout, the FTP server process can be left pending indefinitely if the corresponding client crashes without closing the control connection.	300 seconds (5 minutes)
Debug Output Channels	Specifies the number of debug output channels.	2
Debug Output Mask	Specifies the port number of the output mask used for debugging.	23
Base Directory	Specifies the path where the FTP log file and other support files are stored.	\Windows
Log Size	Specifies the maximum size of the file that logs FTP activities. The log file is stored in the base directory. A new log file is created, when the current log file reaches its maximum size.	4096 bytes
Security Parameters		
Use Authentication	Check this option to require a valid NTLM user name and password to access the FTP server. If authentication is enabled, you must enter one or more valid user names in the User List field. NTLM user accounts are defined in the User Account Manager of the control panel.	Enabled (checked)
Allow Anonymous Logins	Check this option to let anyone connect to the FTP server. Anonymous log ins do not require a user name and password.	Enabled (checked)
Allow Anonymous Uploads	Check this option to let users logged in anonymously to upload (or write) files to the FTP server (or default directory). If unchecked, users logged in anonymously can download (or copy) files from the server.	Disabled (unchecked)
Allow Anonymous VRoots	Check this option to let users logged in anonymously to access virtual roots.	Disabled (unchecked)
User List	Specifies the NTLM users that can access the FTP server and exchange files to or from the default directory. When selected, you can enter a list of NTLM user names, separated by semicolons, in the field that opens at the bottom of the dialog box. User names and passwords are defined in the User Account Manager of the control panel.	None

FTP Anonymous Login and Upload

The default FTP security options let you log in anonymously to the terminal and copy files between your computer and the default FTP folder on the terminal.



TIP If Allow Anonymous Uploads is unchecked, you can copy files from the default FTP folder on the terminal but not to the folder.

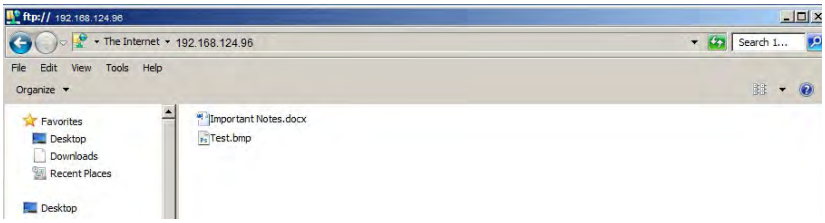
To establish an FTP connection to the terminal by using anonymous log ins and file transfers to and from the FTP folder, follow these steps.

1. On your computer, open the web browser or any folder.
2. Determine the IP address of your terminal by clicking the Network Connection icon in the system tray.

3. Type the terminal IP address in the address field.

EXAMPLE Use this syntax for the IP address: ftp://ipaddress_of_the_terminal.
For example, ftp://192.168.124.96

A connection is established to the \Temp folder, the default FTP directory on the terminal. The terminal shows two files.



If you launch the FTP connection from your web browser, this view can appear.

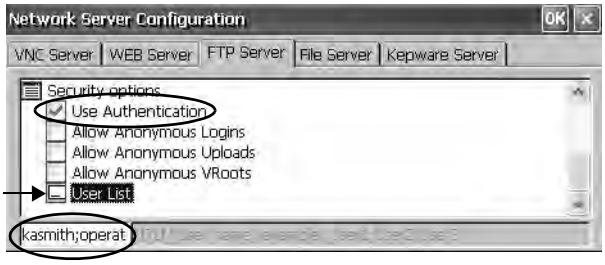
FTP root at 192.168.124.96 - Windows Internet Explorer
FTP root at 192.168.124.96
To view this FTP site in Windows Explorer, click Page, and then click Open FTP Site in Windows Explorer.
03/18/2007 03:23PM 12,664 Important Notes.docx
03/18/2007 03:24PM 3,398 Test.bmp

To see the folder view, choose Open FTP site in Windows Explorer from the Page pull-down menu.

4. Transfer files between your computer and the FTP folder on the terminal:
   - Drag or copy a file from the FTP folder to your computer.
   - Drag or copy a file to the FTP folder from your computer.

FTP Connection Requiring User Authentication

You can require a user name and password before establishing an FTP connection. On the FTP Server tab, check Use Authentication. Select User List and enter a valid user name in the field that opens at the bottom of tab.



TIP User names and passwords are set up in the User Accounts application of the control panel. Refer to User Accounts on page 89 for details.

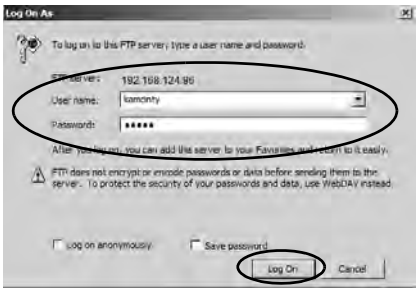
To establish an FTP connection to the terminal by first entering a valid user name and password, follow these steps.

1. On your computer, open any folder or the browser.
2. Determine the IP address of your terminal by clicking the Network Connection icon in the system tray.

3. Type the terminal IP address in the Windows Explorer address field.

EXAMPLE Use this syntax for the IP address: ftp://ipaddress_of_the_terminal.
For example, ftp://192.168.124.96

4. Click OK if the FTP Folder Error dialog box appears.
5. From the File menu, choose Login As.



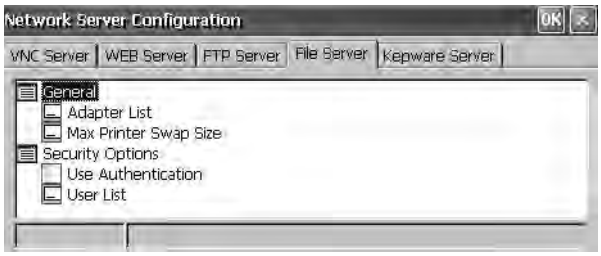
TIP The user name must be in the User List of the FTP configuration and previously set up as a valid account in the User Accounts application.

6. Type a valid user name and password, then click Log On.

   The default FTP directory on the terminal opens. You can transfer files to or from this folder.

File Server

The File Server tab in Network Server Configuration has settings that allow shared access to files, printers, serial ports, and miscellaneous communication between computers on a network. These are standard Microsoft Windows CE parameters.



TIP Click OK in the title bar of the dialog box to apply new settings. You are asked if you want to restart the service immediately.

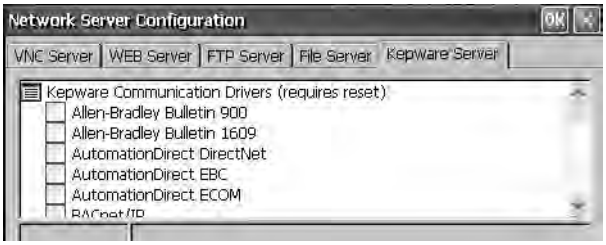
Table 27 - File Server Configuration

Parameter	Description	Default
General		
Adapter List	Provides a list of valid adapters.	* (all adapters)
Max Printer Swap Size	Specifies the maximum size of the printer swap file.	4096 bytes
Security Options		
Use Authentication	Check this option to require a valid NTLM user name and password to access the file server. If authentication is enabled, you must enter one or more valid user names in the User List field. NTLM user accounts are defined in the User Account Manager of the control panel.	Disabled (unchecked)
User List	Specifies a list of valid NTLM users allowed to access the file server. When selected, you can enter a list of NTLM user names, separated by semicolons, in the field that opens at the bottom of the dialog box. User names and passwords are defined in the User Account Manager of the control panel.	None

KEPServer Configuration

The Kepware Server tab in Network Server Configuration lets you select Kepware communication drivers for connected devices.

TIP For a complete list of KepWare drivers, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'KepWare Drivers for PanelView Plus'.



IMPORTANT Click OK in the title bar to apply new settings. You are asked if you want to restart the service immediately. **You must also reset your terminal.**

System Information

The System Information application provides tabs to view and set system-wide properties for your terminal.

General Information

The General tab of System Information shows the current version of the Windows CE operating system, the processor type, speed, and available memory.

Startup Options

The Startup Options tab of System Information lets you set these start-up options:

- Show or hide the battery warning
- Launch the terminal as open or closed
- Disable or enable safe mode
- Show or hide system watchdog errors

Battery Warnings

Battery Low/Depleted: Replace battery and verify time/date of system clock. Otherwise, time/date stamped data may be inaccurate!
Ok

If the battery is low, missing, or depleted, a warning appears each time the terminal starts up.

TIP

- The terminal can operate without a battery if the accuracy of the date and time is not critical.
- When replacing the battery, you can verify the accuracy of the system date and time from the desktop control panel or the terminal settings in FactoryTalk View ME Station.

You have three options for handling the battery.

Battery Warning Startup Options	Description
Always show at startup (continue with startup)	Shows the battery warning at startup with FactoryTalk View ME Station software running behind it. This is the default.
Always show at startup (halt startup)	Shows the battery warning at startup but halts the startup or boot process until you press OK.
Never show at startup	Hides the battery warning at startup.

Startup Options

Use the Shell options to launch an open or closed desktop at startup and to set the visual appearance of button controls.

Shell Startup Options	Description
Type	Launches the terminal as an open or closed system at startup: • (Open system) – launches the Windows CE desktop on startup. • (Closed system) (default) – launches FactoryTalk View ME Station Configuration mode on startup. You can also allow or restrict desktop access within FactoryTalk View ME Station Configuration mode by pressing Terminal Settings>Desktop Access Setup. Refer to Desktop Access on page 44.
User Interface Button Controls	Sets the visual appearance of control buttons at startup: • Windows XP Style (default) • Windows 95 Style

Boot Option

The boot options provides a way for you to enter Safe mode at startup.

Safe Mode Options	Description
Do not detect Safe mode request at startup	Disables Safe mode detection during startup. This is the default.
Detect Safe mode request at startup	Displays a small white box in the lower left corner of the terminal display during startup. Press and hold the white box to enter Safe mode. This lets you bypass a loaded FactoryTalk View ME application and go directly to Configuration mode. If you do not press the white box, the system boots up normally. Another way to enter Safe mode is to access Maintenance mode. Refer to Maintenance Mode Operations on page 137.

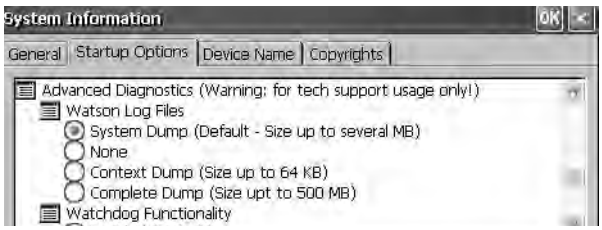
Watchdog Errors

You can show or hide watchdog errors at startup.

Watchdog Error Options	Description
Always show watchdog errors at startup	Shows the fatal watchdog error (error 02) at startup and halts the normal boot process. This is the default. The system launches the maintenance window with the watchdog error displayed. You can continue booting from this window. Refer to Maintenance Mode Operations on page 137 for details. The error is logged to the System Event log.
Never show watchdog errors at startup	Hides the errors at startup and adds the error to the system event log.

Advanced Diagnostics

Advanced diagnostics are for technical support use to diagnose and resolve system errors. They are not for use in a normal production environment.



Device Name

The Device Name tab of System Information identifies your terminal to other devices on the network by providing a device name and description.

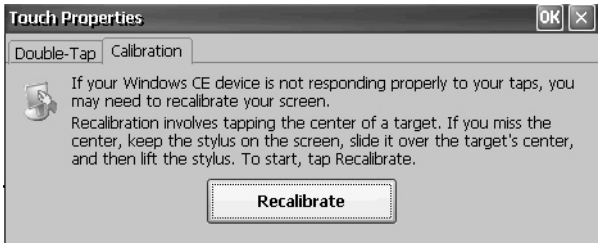
TIP Device names must be unique. Duplicate names conflict and cause network problems.

Touch Properties

Touch Properties is accessible on devices with a touch screen. It lets you calibrate the touch screen and set the sensitivity of touch screen taps.

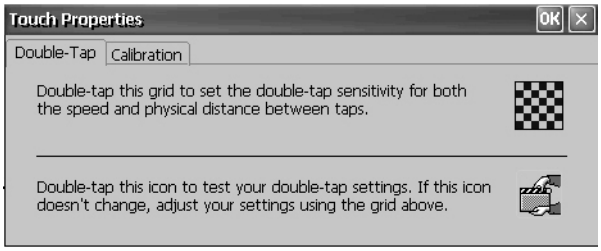
Calibration

The Calibration tab lets you recalibrate the touch screen if your device is not responding appropriately to taps. Follow the instructions in the dialog box to recalibrate.


Touch Properties
OK
Double-Tap
Calibration
If your Windows CE device is not responding properly to your taps, you may need to recalibrate your screen.
Recalibration involves tapping the center of a target. If you miss the center, keep the stylus on the screen, slide it over the target's center, and then lift the stylus. To start, tap Recalibrate.
Recalibrate

Double-Tap

The Double-Tap tab lets you set and test the double-tap sensitivity of the touch screen taps.


Touch Properties
OK
Double-Tap
Calibration
Double-tap this grid to set the double-tap sensitivity for both the speed and physical distance between taps.
Double-tap this icon to test your double-tap settings. If this icon doesn't change, adjust your settings using the grid above.

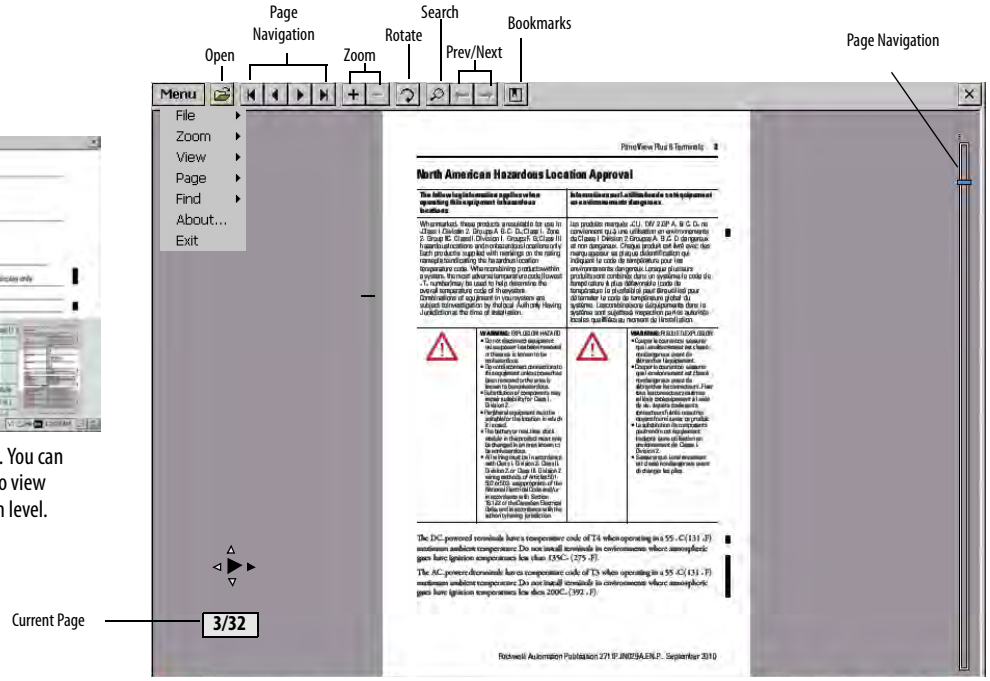
PDF Reader

The PDF reader provides typical view and search functions. You can run this reader from the Windows desktop or a command prompt.

When viewing a PDF document, you can initiate functions from the menu or toolbar. Bookmarks created in the original PDF appear under bookmarks.

Figure 7 - PDF Reader Workspace

Magnified view of page with minimap. You can touch the gray areas on the minimap to view another area of page at the same zoom level.



Some viewing functions can be initiated on touch screen terminals by touching or dragging.

Table 28 - Touch Screen Operations

To	Do This	Indicator
Zoom In or Out	Tap the screen once to zoom in. Tap the screen again to zoom out. If Menu>View>Minimap is chosen, a miniview of the page appears in lower right of workspace. You can tap the gray areas to change view.	
Navigate pages	• Drag your stylus or finger to the right or left to view next and previous pages. An indicator shows the direction your are dragging. A box shows the current page/total page count. • Drag up or down the screen to activate the page navigation bar on the right. Move slide bar up or down to navigate pages.	 3/32 See page navigation bar in Figure 7.
Rotate	Drag in a circular, clockwise or counterclockwise direction to rotate the page.	

Command Prompt Parameters

You can run the PDF reader from the Windows Command Prompt by choosing Start>Programs>Command Prompt and executing the command parameters in Table 29.

Command Prompt Syntax

Foxitreader "file_path/file-name.pdf" *parameter parameter_ value*

- Enclose the file path and file name in double quotes and use forward slashes to separate the file path directories and file name.
- Use spaces to separate the parameter from the file name and optional parameter value.

Command Prompt Example

Foxitreader "windows/desktop/example.pdf" -p 4

This command prompt opens example.pdf in Foxit Reader at page 4.

Table 29 - Command Prompt Parameters

Parameter	Parameter Function	Example	Description
-p	Go to page	Foxitreader "file_path/file.pdf" -p 2	Opens the PDF file to page 2.
-zw	Fit width	Foxitreader "file_path/file.pdf" -zw	Opens the PDF file and fits the view to the page width.
-zp	Fit page	Foxitreader "file.pdf"-zp	Opens the PDF file and shows the full page.
-z	Zoom to	Foxitreader "file.pdf"-z 150	Opens the PDF file and zooms to 150%.
Multiple parameters	Enter empty spaces between parameters and parameter values	Foxitreader "file_path/file.pdf" -p 2 -zw	Opens the PDF file to page 2 and fits the view to the page width.
-b	Go to bookmark	Foxitreader "file_path/file.pdf" -b "Bookmark1"	Opens the PDF file to the location specified within Bookmark1.
-d	Go to named destination	Foxitreader "file_path/file.pdf" -b "Destination1"	Opens the PDF file to the location specified within Destination 1.
-g	Disable the File>Open command on the Menu and the Open folder button.	Foxitreader "file_path/file.pdf" -g	Opens the PDF file and dims the Menu, File>Open command and the Open button.

Install and Replace Components

Topic	Page
Connect to USB Ports	112
Install a USB Printer	113
Insert an SD Card	115
Replace the Battery	117
Install a Protective Overlay	119

ATTENTION: Prevent Electrostatic Discharge (ESD)

This equipment is sensitive to electrostatic discharge that can cause internal damage and affect normal operation.

Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
- Wear an approved grounding wriststrap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation, if available.
- Store the equipment in appropriate static-safe packaging when not in use.

ATTENTION: Shock Hazard

Disconnect all power before installing or replacing any components. Failure to disconnect power can result in electrical shock or damage to the terminal.

At the end of its life, collect this equipment separately from any unsorted municipal waste.

TIP For a complete list of supported devices, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'PanelView Plus Hardware Compatibility List'.

Connect to USB Ports

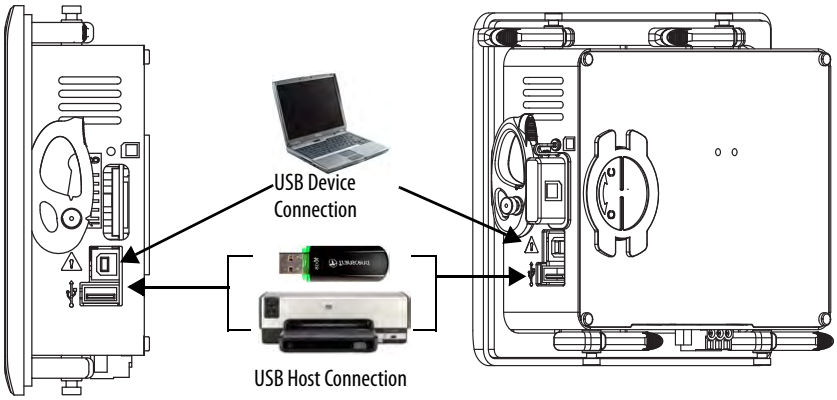
Each terminal has one USB 2.0 (type A) host connection and one USB 2.0 (type B) device connection:

- The USB host connection supports removable USB drives and a USB printer.

> **IMPORTANT** Refer to Required Circuit Port Parameters for USB Peripheral Devices on page 23 for information on how to use the USB host ports and USB peripheral devices in hazardous locations.

- The USB device connection supports a connection to a host computer.

> **IMPORTANT** The USB host and device connections are intended for temporary use. Do not use the USB host and device connections for runtime operations.



Icons identify the USB host connections. The USB host connection supports 0.5A at 5V DC. Connected USB devices must not exceed this power load.

Table 30 - USB Connector Pinout

USB Port	Icon	USB Connector	Pin	Signal	Description
Host			1	VCC	+5V
			2	D-	Data -
Device			3	D+	Data +
			4	GND	Ground

> **WARNING:** USB devices that are not powered by the USB port must be within the same enclosure as the terminal. The USB devices must be connected to a ground system common with the terminal or used with a USB hub that provides galvanic isolation.

Connect only externally powered USB hubs to the terminal that are USB 2.0 compatible. Before attaching devices to a USB hub, make sure the power adapter is connected and powered on.

USB Cables

Use high-speed, USB 2.0 certified cables for error-free transmissions.

Install a USB Printer

The terminal supports the connection of one USB printer such as Canon, Epson, Hewlett-Packard, and Brother. The printers support plug-and-play installation and manual installation if a suitable driver is available. You can connect a printer to a USB port on the terminal.

TIP For more information on supported printers, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'Printers Supported on PanelView Plus'.

Printers are configured and managed from the Printers application in the desktop control panel. A wizard is supported for each printer type.

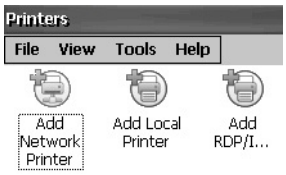


Table 31 - Support for Printers

Printer Type	Description
Local USB	You can connect a JETCET supported printer to a USB host port. The printer that is attached to the USB host port can be shared by a remote terminal when configured as a network printer on the remote terminal.
Network	The terminal supports a remote printer that is connected to the network via the Ethernet port. The printer can be addressed by its device name or IP address.
RDP /ICA	A local printer can be made available to a Windows server application that is running in a remote desktop protocol (RDP) session on the terminal.

After configuring a printer, you can access it from desktop applications or from FactoryTalk View ME Station. Press Terminal Settings, then choose Print Setup. Applications can also select and share printers.

Plug-and-Play Installation

To install a plug-and-play printer from the Windows desktop, follow these steps. For manual printer installation, see Manual Printer Installation on page 115.

TIP This procedure shows a plug-and-play installation for the Hewlett Packard HP deskjet 5650 printer.

1. Connect the printer to a USB host port on the terminal.
2. Plug the power cord of the printer into an outlet and turn on the printer.

   Windows automatically detects your plug-and-play printer, and in most cases, without requiring you to make any selections.

The printer is ready to print.

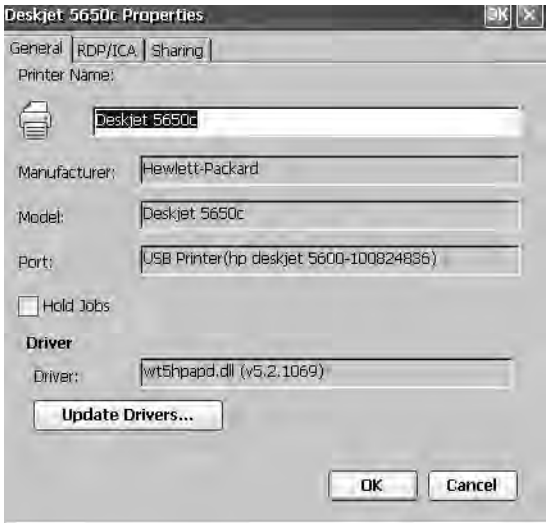
IMPORTANT If automatic plug-and-play installation is not supported for a printer, the error is logged to the System Event log in the Hardware Monitor.

For example: *JETCET PRINT was unable to auto-configure printer. To configure the printer manually, go to the Printers folder from the Control Panel.*

3. Verify printer installation from the desktop control panel by opening the Printers application.

   Notice the icon for the Deskjet 5650C printer. The check mark indicates that this printer is the default printer.

4. From the File menu, choose Properties to view the properties of the printer.

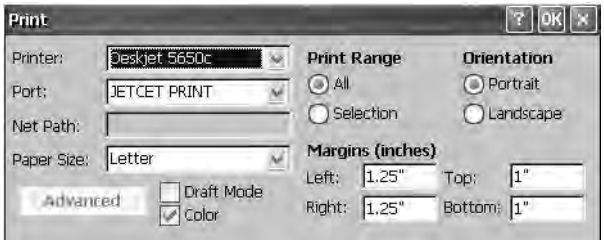


   Printer properties include the printer name, manufacturer and model, print driver, and port-specific parameters.

TIP
- New printer configurations are retained through a power cycle.
- Printers set up through the desktop control panel are also available within FactoryTalk View ME Station when pressing Terminal Settings>Print Setup.

5. Right-click the printer and print a test page to verify installation.

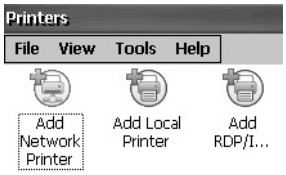
When printing from an application such as WordPad, a Print dialog box opens where you can adjust settings.



Manual Printer Installation

To manually install a supported printer, follow these steps.

1. Connect the printer to a USB port of the terminal.
2. Plug the power cord of the printer into an outlet and turn on the printer.
3. From the desktop control panel, open Printers .
4. Click Add Local Printer.



5. Follow the Add Local Printer Wizard instructions to configure the printer:
   a. Verify that the connected printer appears on the USB printer port.
   b. Select the manufacture and model of the JETCET printer.
   c. Accept the default printer name or enter another.
   d. Print a test page to verify the installed printer.
   e. Specify whether you want the printer to be shared on the network.

Insert an SD Card

An SD card provides extra storage when inserted into the SD card slot of the terminal. Supported cards include catalog numbers 1784-SD1 and 1784-SD2. The SD cards are hot-swappable; they can be inserted and removed while the terminal is powered on and running.

WARNING: EXPLOSION HAZARD

If you remove or insert an SD card while the power is on, an electrical arc can occur. This can cause an explosion in hazardous location installations.

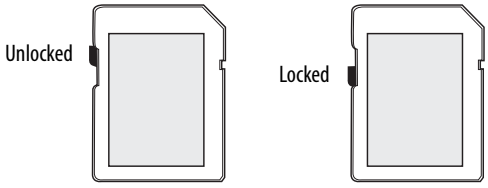
Do not remove and insert the SD card unless power has been removed or the area is known to be nonhazardous.

For ATEX and hazardous location installations, the SD card cover must be installed.

The SD card slot is accessible from the inside or back of the panel when the operator terminal is installed.

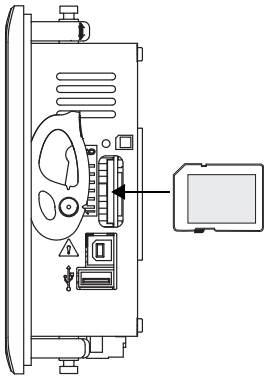
To install an SD card in the card slot, follow these steps.

1. Remove the protective cover from the card slot.
2. Verify that the SD card is locked or unlocked according to your preference.
   - If unlocked, the terminal can write data to or read data from the card.
   - If locked, the terminal can only read data from the card.



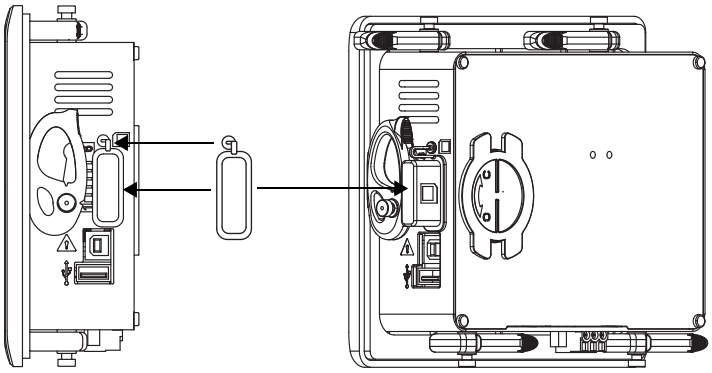
ATTENTION: Orient the SD card correctly before inserting into slot. Forcing the card into the slot can damage the card or the terminal.

3. Insert the SD card firmly into the slot.



To remove the card, grasp the end of the card and pull it out.

4. Attach the protective cover over the card slot (the protective cover is shipped with the terminal).



ATTENTION: The cover is required to secure the card in high-shock and vibration environments. It also prevents ESD discharge to the card during runtime operation.

Replace the Battery

The product has a lithium battery that provides backup power for the real-time clock and static RAM. The battery can be replaced while the product is mounted in the panel. No special tools are required to replace the battery.

This product contains a sealed lithium battery which may need to be replaced during the life of the product.

At the end of its life, the battery contained in this product should be collected separately from any unsorted municipal waste.

The collection and recycling of batteries helps protect the environment and contributes to the conservation of natural resources as valuable materials are recovered.

WARNING: There is a danger of explosion if the lithium battery or real-time clock module in this product is incorrectly replaced. Do not replace the battery or real-time clock module unless power has been removed and the area is known to be nonhazardous.

Replace the battery only with catalog number 2711P-RY2032 or an equivalent CR2032 coin-cell battery.

Do not dispose of the lithium battery or real-time clock module in a fire or incinerator. Dispose of used batteries in accordance with local regulations.

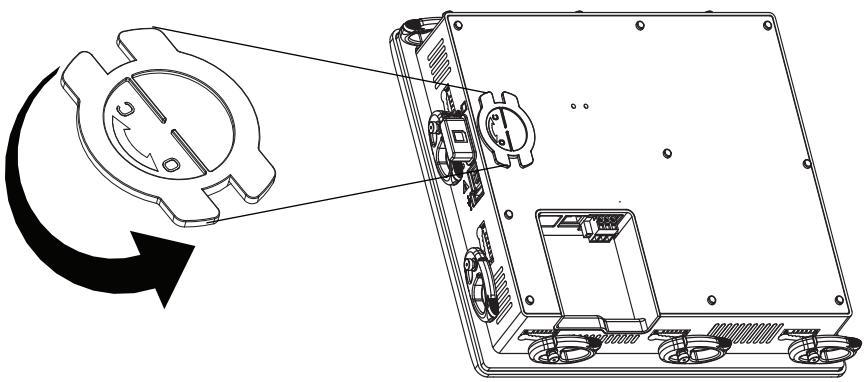
For safety information on the handling of lithium batteries, including handling and disposal of leaking batteries, see Guidelines for Handling Lithium Batteries, publication AG 5-4.

Perchlorate material – special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

This perchlorate warning only applies to primary Lithium Manganese Dioxide ($LiMnO^2$) cells or batteries, and products containing these cells or batteries, sold or distributed in California, USA.

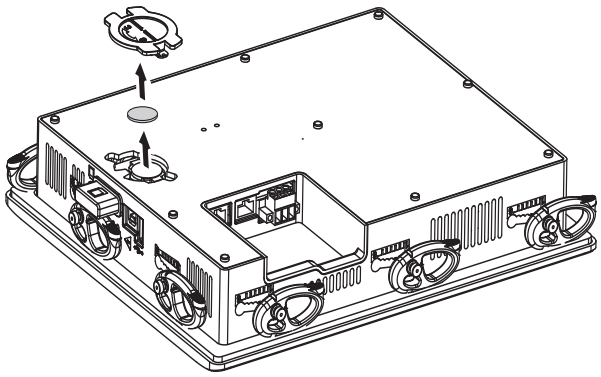
To replace the battery, follow these steps.

1. Disconnect power from the terminal.
2. Remove the battery cover by rotating it from the C (closed) to the O (open) position.

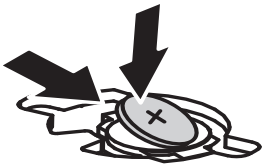


3. To disengage the battery, on the metal latch, press the vertical center tab away from the battery.

   The battery is released.



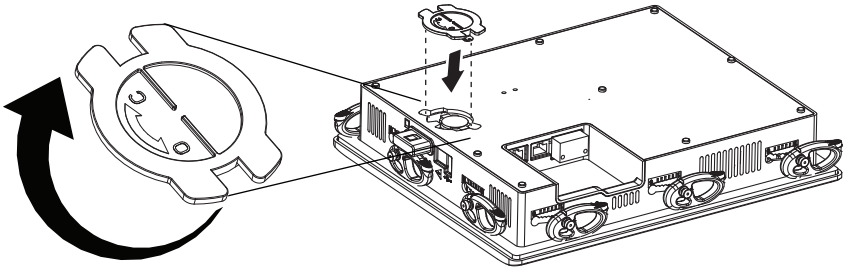
4. Insert the new battery at an angle under the metal latch, with the positive polarity (+) facing up.



5. Gently press down on the opposite side of the battery until it locks into place.

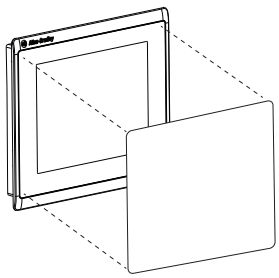
IMPORTANT Make sure that the battery is fully inserted under the plastic tabs. If this is not done, damage can occur, and this voids the warranty.

6. Replace the battery cover by aligning its tabs with the battery opening and rotate the cover from the O (open) to the C (closed) position.



Install a Protective Overlay

The overlay protects the terminal touch screen from scratches, dust, fingerprints, and external damage from chemicals or abrasive materials. See Table 4 on page 17 for a list of available protective overlays.



The protective overlay covers the entire surface of the terminal bezel inside the plastic perimeter. The overlay has a protective liner that is removed by pulling back on the tab. Do not remove the liner until you are ready to install the overlay.

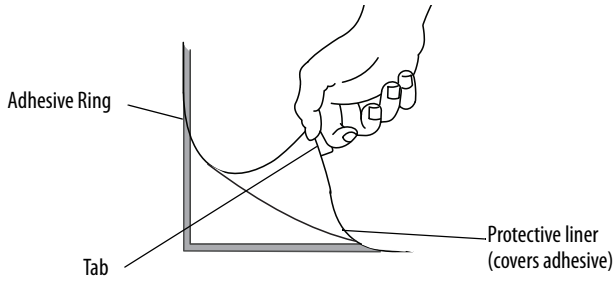
IMPORTANT Follow these precautions when installing the protective overlay:

- Make sure your hands are clean and dry.
- Handle the overlay by its edges. If you get marks or lint on the overlay, remove them before proceeding.
- Do not touch the adhesive ring.

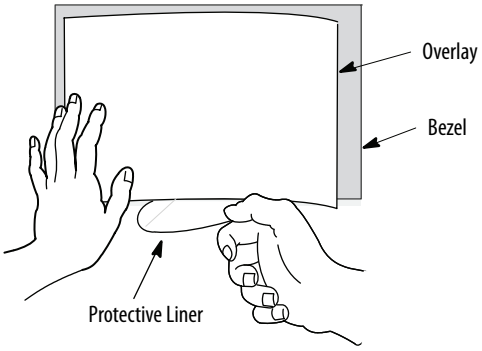
Before installing the overlay, use a lint-free cloth and a mild glass cleaner to clean the touch screen surface. Remove all fingerprints, grease, or dust. Marks not removed are trapped underneath the overlay. Grease also affects the adhesion of the overlay.

To apply the protective overlay, follow these steps.

1. Disconnect power from the terminal.
2. Pull the tab from one of the short sides and partially peel the liner away from the adhesive layer.



Hold the peeled back portion of the protective liner out of the way as you perform the next step.



3. Center the overlay over the bezel and carefully position the adhesive surface on the terminal.

   While the protective liner is still covering the rest of the overlay, verify that it is properly centered.

4. Slowly peel off the rest of the liner while using a soft cloth to press the overlay on the screen.

   Make sure that the overlay lies flat with no bubbles or warps.

5. With a soft cloth or finger, press around the edges of the overlay to seal it, and remove any air bubbles trapped in the adhesive.

Clean the Overlay

Use a clean, lint-free cloth, and a mild glass cleaner that leaves no streaks to clean the overlay. Windex or an eye glass cleaner is recommended. Do not use cleaners that contain abrasives.

Remove the Overlay

Remove the overlay if it is damaged or needs replacement. Lift a corner and slowly pull off the overlay. Use isopropyl alcohol to remove any residual adhesive. Do not reuse the overlay.

Update Firmware

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Terminal Firmware

Firmware components are packaged as execute-in-place (XIP) regions in one system code (SC) .img file. When the SC .img file is copied to the virtual file system (VFS) on the terminal, the XIP regions are updated and the terminal restarts automatically. These firmware components are affected during an upgrade:

- FactoryTalk View ME Station software
- Communication protocols and drivers including Kepware drivers
- Windows fonts
- Windows CE components
- FactoryTalk components
- User extensions

A firmware upgrade does not affect these terminal components or settings:

- Windows registry
- File system including the FactoryTalk View ME application that is loaded(1) in the terminal
- Network parameters including the network device name, DHCP-enabled and static(2) IP addresses, speed, and duplex setting
- Display settings
- Screen saver configuration
- Touch screen calibration

(1) In some cases, the FactoryTalk View ME application can be missing after a firmware upgrade.
(2) In some cases, static IP addresses have been changed to DHCP-enabled IP address after a firmware upgrade.

Download Firmware Files

Download the appropriate firmware installation package from the Rockwell Automation Product Compatibility and Download Center. The package is named:

PVP7_<*termin*al family>_*x.xx-yyyymmdd*.exe, where:

- <*terminal family*> is the name of the terminals
- *x.xx* is the FactoryTalk View ME software version that is contained in the package
- *yyyymmdd* is the date that the package was created

This installation package contains the following items:

- Firmware upgrade package (FUP) contains an autorun executable and the new firmware files.
- Firmware upgrade wizard (FUW), version 6.10 or later, is used to upgrade the terminal firmware by using the contents of the FUP.

The FUP and FUW are copied to your computer during the download.

To download firmware installation files to your computer, follow these steps.

1. From the Quick Links list on http://www.ab.com, choose Product Compatibility and Download Center.
2. Click the Get Downloads tab.
3. Click Find Product Downloads.
4. From the All Families pull-down menu, choose PanelView Plus 7.
5. Select a firmware version, then click Downloads.
6. Download the upgrade file (.exe) to a temporary folder on the same drive as FactoryTalk View ME (ME) software.
7. Run the upgrade file (.exe) installation procedure:
   - The FUW is installed in the FactoryTalk View ME folder.
   - The firmware upgrade package (.FUP) file is installed into the folder that is specified during the installation procedure.

TIP The FUP name is ME_PVP7*x*A_6=7.*xx*-yymmdd

- yyyymmdd is the date the firmware package was created
- 7.*xx* is the version of ME contained in this package

You are now ready to run the FUW to upgrade the terminal firmware from a USB drive or SD card, or by using a network connection.

Firmware Upgrade Wizard

The firmware upgrade wizard (FUW) is used to upgrade the terminal firmware. Two methods are provided for upgrading the firmware:

- Create a firmware upgrade card with the contents of the FUP file that you can then load in the terminal to upgrade the firmware.

  The firmware upgrade card can be a USB drive or an SD card, catalog number 1784-SD*x*.

- Upgrade firmware in a terminal that is connected to a computer over a direct network connection. The network connection requires a computer running RSLinx Enterprise software, version 5.0 or later. In the RSLinx Enterprise software, you select the terminal that you want to upgrade.

You can run the FUW from within FactoryTalk View Studio software or from the Programs menu on your computer:

- In FactoryTalk View Studio software, from the Tools menu, choose Firmware Upgrade Wizard.
- Choose Start>Programs>Rockwell Software>FactoryTalk View>Tools>ME Firmware Upgrade Wizard.

Upgrade the Terminal Firmware from a Storage Device

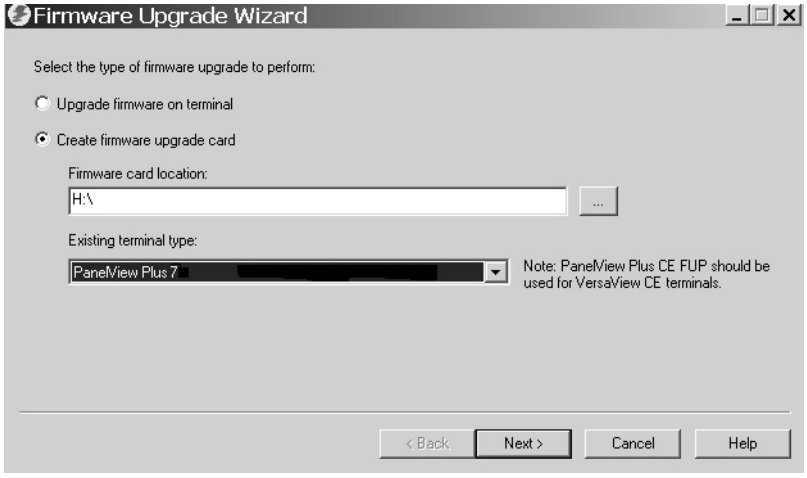
To upgrade firmware from a storage device, you follow a two-step process. First, you create a firmware upgrade card with the required firmware files. Second, you load the card in the target terminal to upgrade the firmware.

The firmware upgrade card can be a USB drive or an SD card.

Create a Firmware Upgrade Card

To copy firmware files to a USB drive or SD card, follow these steps.

1. Insert either a USB drive or an SD card into the appropriate slot on your computer.
2. Run the Firmware Upgrade Wizard:
   - In FactoryTalk View Studio software, from the Tools menu, choose Firmware Upgrade Wizard.
   - Choose Start>Programs>Rockwell Software>FactoryTalk View>Tools>ME Firmware Upgrade Wizard.
3. Follow these steps from the initial Firmware Upgrade Wizard dialog box.
   a. Click Create firmware upgrade card.



b. Select the location of the firmware card by browsing to the root directory of the storage card that is loaded in your computer for example E:\.

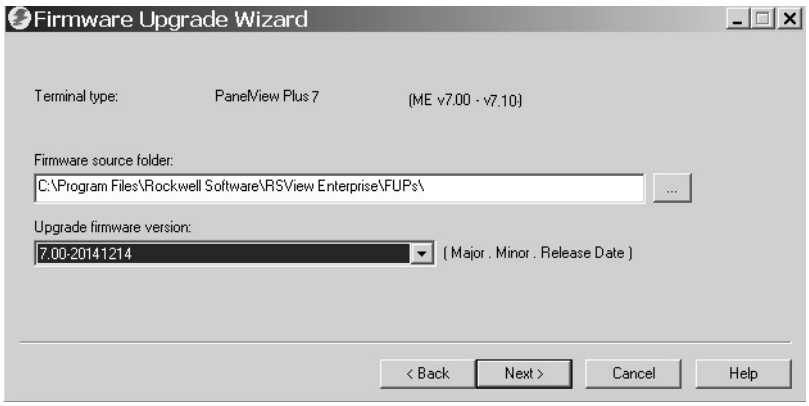
   The firmware files are copied to this location. You can also specify a folder on the hard disk.

c. From the Existing terminal type pull-down menu, select a PanelView Plus 7 terminal.

d. Click Next.

4. Follow these steps from this dialog box.

   a. Browse to the location of the firmware source files on your computer, where the FUP was installed.



   b. Choose the firmware version for the upgrade.

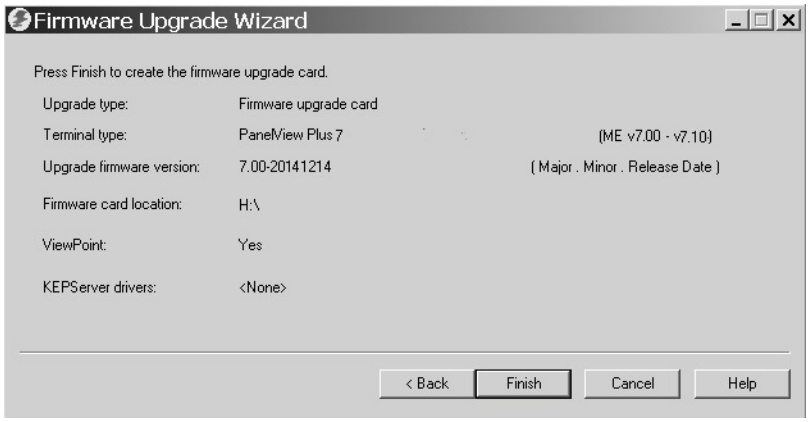
   c. Click Next.

      It can take several seconds for the next dialog box to appear while the FUP is being retrieved.

5. From this dialog box, optionally select the KEPServer drivers that you want included with the firmware, then click Next.

   Kepware drivers are already installed on the PanelView Plus 7 Standard terminals.

The final dialog box summarizes your choices for creating the firmware upgrade card.



6. Click Finish to copy the firmware files to the firmware upgrade card.

   A progress bar automatically updates as files are copied to the USB drive or SD card.

7. Click OK when the firmware upgrade completes successfully.

TIP If the firmware files were copied to the hard disk, copy the files to the root directory of the USB drive or SD card.

8. Remove the USB drive or SD card from your computer.
9. Go to the next section to use this firmware upgrade card to upgrade the terminal firmware.

Upgrade Terminal Firmware by Using a Firmware Upgrade Card

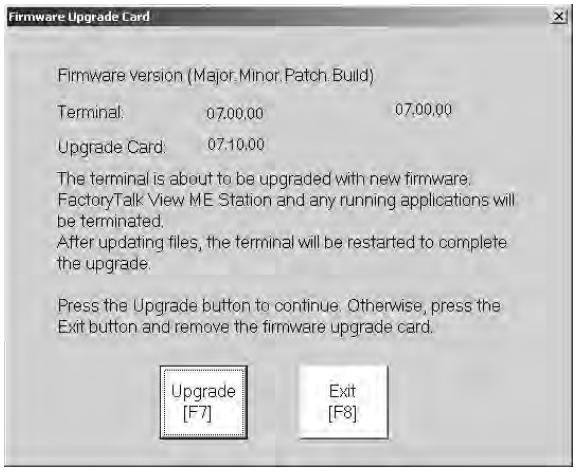
To transfer firmware files from the USB drive or SD card to the terminal, follow these steps. Use the firmware upgrade drive or card that you created in the previous section.

IMPORTANT

- Do not remove or disconnect the USB drive or SD card while a firmware upgrade is in process. Doing so can corrupt the firmware and make the terminal unstable.
- Do not power off the terminal during a firmware upgrade.
- USB hubs can produce unexpected behavior and are not recommended.

1. Insert the USB drive or SD card into the appropriate slot on your terminal.

   The firmware upgrade automatically starts and displays this dialog box.


Firmware Upgrade Card
Firmware version (Major.Minor.Patch.Build)
Terminal:
07.00.00
07.00.00
Upgrade Card:
07.10.00
The terminal is about to be upgraded with new firmware.
FactoryTalk View ME Station and any running applications will be terminated.
After updating files, the terminal will be restarted to complete the upgrade.
Press the Upgrade button to continue. Otherwise, press the Exit button and remove the firmware upgrade card.
Upgrade [F7]
Exit [F8]

2. Press Upgrade or [F7] on the terminal to start the firmware upgrade.

   The terminal restarts and displays a progress bar during the upgrade.

   When the upgrade is complete, the terminal restarts and executes the new firmware.

3. Remove the USB drive or SD card from the terminal.

IMPORTANT If the firmware upgrade fails because of a power loss or the firmware upgrade card is inadvertently removed, you can restore the terminal to the factory default firmware. See Maintenance Mode Operations on page 137 for details on how to restore the factory default settings.

Upgrade Terminal Firmware over the Network

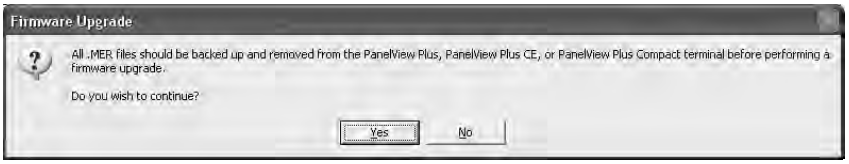
You can upgrade firmware in a terminal that is connected to a computer over a direct network connection. The network connection requires a computer that is running the firmware upgrade wizard (FUW) and RSLinx Enterprise software, version 5.0 or later.

RSLinx Enterprise software is required so that you can select the terminal on the network.

To copy firmware files to the terminal over a network by using RSLinx Enterprise software and Ethernet communication, follow these steps.

1. Run the Firmware Upgrade Wizard:
   - In FactoryTalk View Studio software, from the Tools menu, choose Firmware Upgrade Wizard.
   - Choose Start>Programs>Rockwell Software>FactoryTalk View>Tools>ME Firmware Upgrade Wizard.

2. Click 'Upgrade firmware on terminal' and click Next.
3. Click Yes to continue.


Firmware Upgrade
All .MER files should be backed up and removed from the PanelView Plus, PanelView Plus CE, or PanelView Plus Compact terminal before performing a firmware upgrade.
Do you wish to continue?
Yes
No

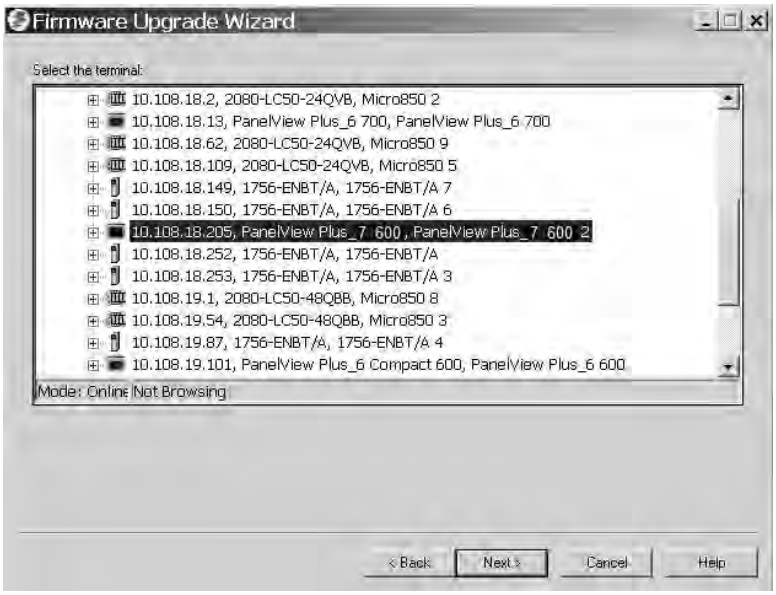
It is not necessary to back up files on PanelView Plus 7 Standard terminals.

4. Click 'Network connection (using RSLinx Enterprise)' and click Next.

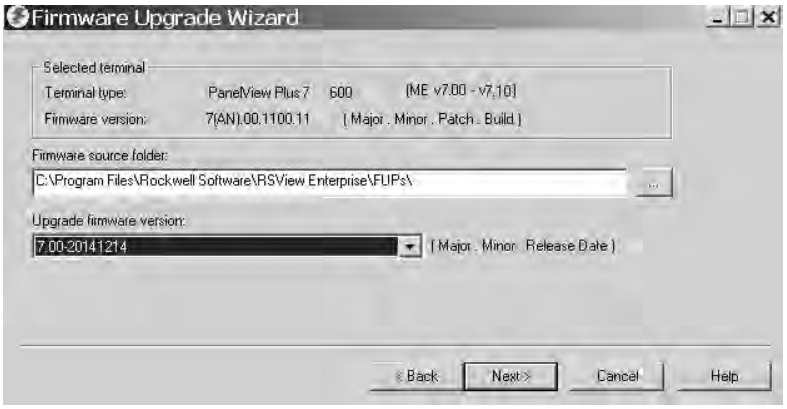
Firmware Upgrade Wizard
Select the type of connection to the terminal:
Network connection (using RSLinx Enterprise)
(Only connection type available for use with FactoryTalk View ME Station v6.00 or later terminals.)
Ethernet connection (using PanelView File Transfer Utility)
Serial connection
(using PanelView File Transfer Utility and RAS connection)
< Back
Next >
Cancel
Help

This option is the only valid selection for PanelView Plus 7 Standard terminals.

5. Navigate to and select the terminal to receive the firmware update, then click Next.


Firmware Upgrade Wizard
Select the terminal:
10.108.18.2, 2080-LC50-24QVB, Micro850 2
10.108.18.13, PanelView Plus_6 700, PanelView Plus_6 700
10.108.18.62, 2080-LC50-24QVB, Micro850 9
10.108.18.109, 2080-LC50-24QVB, Micro850 5
10.108.18.149, 1756-ENBT/A, 1756-ENBT/A 7
10.108.18.150, 1756-ENBT/A, 1756-ENBT/A 6
10.108.18.205, PanelView Plus_7 600, PanelView Plus_7 600 2
10.108.18.252, 1756-ENBT/A, 1756-ENBT/A
10.108.18.253, 1756-ENBT/A, 1756-ENBT/A 3
10.108.19.1, 2080-LC50-48QBB, Micro850 8
10.108.19.54, 2080-LC50-48QBB, Micro850 3
10.108.19.87, 1756-ENBT/A, 1756-ENBT/A 4
10.108.19.101, PanelView Plus_6 Compact 600, PanelView Plus_6 600
Mode: Online Not Browsing
< Back
Next >
Cancel
Help

6. Follow these steps from this dialog box.


Firmware Upgrade Wizard
Selected terminal
Terminal type: PanelView Plus 7 600 (ME v7.00 - v7.10)
Firmware version: 7(AN).00.1100.11 (Major . Minor . Patch . Build)
Firmware source folder:
C:\Program Files\Rockwell Software\RSView Enterprise\FUPs\
Upgrade firmware version:
7.00-20141214
(Major . Minor . Release Date)
< Back
Next >
Cancel
Help

   a. Browse to the location of the firmware source files on your computer, where the FUP was installed.

      The default location is shown.

   b. Choose the version of the upgrade firmware from the pull-down menu.

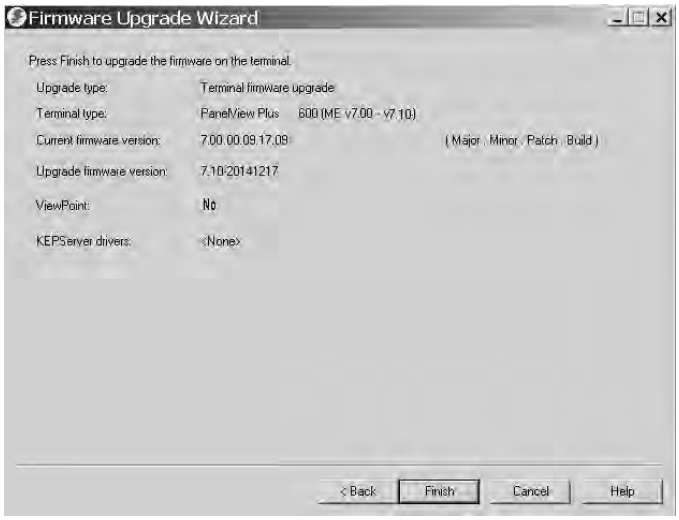
   c. Click Next.

      It can take several seconds for the next dialog box to appear while the FUP is being retrieved.

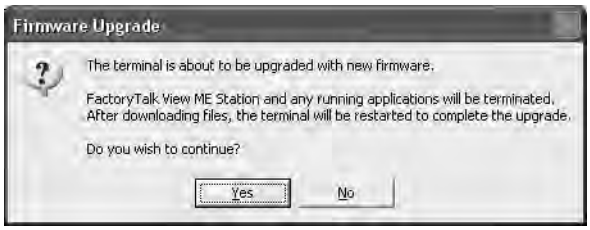
7. From this dialog box, optionally select the KEPServer drivers that you want included in the firmware, then click Next.

   Kepware drivers are already installed on the PanelView Plus 7 Standard terminals.

The final dialog box summarizes your choices for upgrading the terminal firmware.


Firmware Upgrade Wizard
Press Finish to upgrade the firmware on the terminal.
Upgrade type: Terminal firmware upgrade
Terminal type: PanelView Plus 600 (ME v7.00 - v7.10)
Current firmware version: 7.00.00.09.17.09 (Major . Minor . Patch . Build)
Upgrade firmware version: 7.10.20141217
ViewPoint: No
KEPServer drivers: <None>
< Back
Finish
Cancel
Help

8. Click Finish to update the firmware in the terminal.
9. Click Yes to continue with the update.


Firmware Upgrade
The terminal is about to be upgraded with new firmware.
FactoryTalk View ME Station and any running applications will be terminated.
After downloading files, the terminal will be restarted to complete the upgrade.
Do you wish to continue?
Yes
No

A progress bar updates as firmware files are copied to the terminal.

10. Click OK when the firmware upgrade is complete.

Firmware Upgrade Wizard
The upgrade files have been downloaded to the terminal.
Check the terminal for any specific actions necessary to complete the reboot.
OK

The terminal restarts and executes the new firmware.

IMPORTANT If the firmware upgrade fails because of a power loss or the firmware upgrade card is inadvertently removed, you can restore the terminal to the factory default firmware. See Maintenance Mode Operations on page 137 for details on how to restore the factory default settings.

Troubleshooting

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View System Information

View system information for the terminal from FactoryTalk View ME Station runtime or from the Hardware Monitor in the control panel.

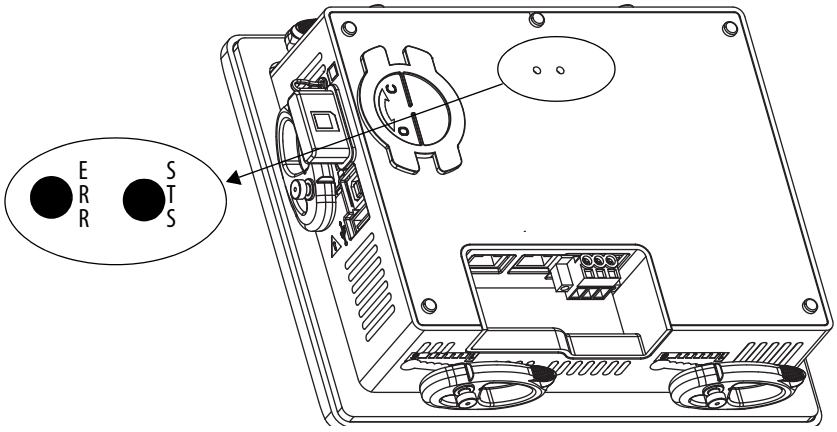
To view system information for the installed components, follow these steps.

1. Access FactoryTalk View ME Station runtime.
2. Tap Terminal Settings, then choose System Information>About FactoryTalk View ME Station.

Status Indicators

The back of the terminal has two indicators to identify system status:

- STS indicator (green) indicates that the terminal is on and running
- ERR indicator (red) indicates hardware and firmware faults



At startup, the STS and ERR indicators flash on and off, then the STS indicator flashes to signal progress during startup. If the indicators remain off, check the power cable.

After a successful startup, the STS indicator remains on.

The table shows indicator states if the terminal stops during startup.

Table 32 - Fault Indicator States During Terminal Startup

ERR (red)	STS (green)	Description	Recommended Action
Blinking	Off	Recoverable firmware error.	Reload the firmware.
		Recoverable configuration failure.	Restore the terminal to its factory default image. Refer to Restore a Back-up Image on page 81.
On	On	Fatal hardware error.	Replace the terminal.
	Blinking	Fatal display hardware error.	Replace the terminal.

Terminal Does Not Start Up

If the terminal does not start up normally, check the table for possible causes.

Table 33 - Terminal Does Not Start Up Properly

Check For	What to Do	See This Page
Insufficient power	Make sure device is receiving adequate power. • Check the DC power requirements.	page 33
Improper power wiring	Verify the power wiring is correct. • Check the wiring specifications. • Check the DC power wiring.	page 32 page 33
Status indicators	Check the status indicators during startup.	page 132
Stalled progress indicator	If a terminal stalls at the progress indicator and does not load an application or configuration screens, reload the firmware or restore factory defaults.	page 81
Object touching display	Verify that nothing is pressing against the display or that you are not touching the display during startup.	N/A

Terminal Restarts Intermittently

If the terminal restarts intermittently, check the table for possible causes.

Table 34 - Terminal Restarts Intermittently

Check For	What to Do	See This Page
Improper power wiring	Verify the power wiring is correct. • Check the wiring specifications. • Check the DC power wiring.	page 32 page 33
Over-temperature conditions	Make sure the processor is not exceeding temperatures for normal terminal operations. • Check the processor temperature. • Check the System Event log for over-temperature conditions. • Check for adequate clearances around the terminal in the panel. • Check for proper operating temperature.	page 67 or page 86 page 66 or page 86 page 24 page 87

Touch Screen Issues

If the touch screen is not responding correctly to touches with a finger or stylus, check the table.

Table 35 - Touch Screen Not Responding

Check For	What to Do	See This Page
Improper calibration	Check for activation points that are offset from touch points. Calibrate the touch screen.	page 60 or page 108
Non-functioning touch screen	Check the touch screen for damage, such as cuts or excessive wear. If there is damage, replace the terminal.	N/A
Touching multiple input elements	Application screens contain graphic input elements that are configured in the Machine Edition application. When touched, these elements perform operations in a predictable manner. For example, an input element is configured to navigate to a specific screen in the application or start a motor when touched. Multiple operations cannot be conducted simultaneously. Doing so results in an unintended operation. • Do not touch multiple input element at the same time. • Do not rest a hand or multiple finger on the display.	N/A

Display Issues

The display is unreadable or dims unexpectedly.

ATTENTION: If the display darkens, or if the backlight is not functioning properly, the screen can be difficult to read and use of this touch screen could result in a potentially hazardous outcome. **Do not use the touch screen under these circumstances**. The design of the system must take into account the possibility of the touch screen losing functionality and unable to be used to maintain or change control of the system. The touch screen shall not be the single point of control of critical functions and is not intended to replace an E-stop.

Design of the system should follow all applicable code and good engineering practice. Factors to consider include:

- The possibility of an unreadable touch screen
- The possibility of an inoperable touch screen
- Unexpected communication errors or delays
- Operator error in the control of the system
- Proper use of E-stops and other safety practices

The user shall provide means to achieve a safe state during anomalies and make sure the system has adequate redundancy for critical functions.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Table 36 - Dim Display

Check For	See These Pages
Low display brightness setting	page 58 or page 83
Low brightness level of screen saver	page 59 or page 84
Temperatures outside the operating range	page 67 or page 86

TIP Extend the life of the backlight by reducing the display brightness, by using the screen saver with reduced brightness, or operating at lower temperatures.

Ethernet Issues

See Figure 37 on page 135 for tips on isolating Ethernet anomalies.

Table 37 - Ethernet Connection Issues

Check for These Issues	What to Do
Status of invalid Ethernet connection	• Green indicator is on when a link is established. • Yellow indicator blinks when activity is detected. • Verify network connections.
Poor cable connections	Check the Ethernet cabling for the following: • Make sure cables are fully connected. • Check for cable crimping. • Check the Ethernet switch connections. • Check the Uplink ports.
Invalid IP address of terminal	Go to Set the Ethernet Address of the Terminal on page 53. If DHCP is enabled, the terminal automatically acquires a valid IP address from the network after startup. The TCP/IP protocol automatically assigns 169.254.*xxx.xxx* when it fails to acquire an IP address from the network. In general, an IP address that begins with 169 does not support a network connection.
Conflicting IP addresses	If DHCP is not enabled and a static IP address is specified, make sure the IP address does not conflict with the address of another device on the network.

Performance Is Slow

If the response time of the application is slow, for example screen changes or text display changes, check for the following issues:

- Application screens contain too many elements.
- If the controller is programmed for feedback, it can cause delays.
- Slow network performance or noise can result in retries.

Resistance to Chemicals

The outer surfaces of the terminal including the bezel, touch screen overlay, and panel sealing gasket are tested for chemical resistance. Some of the chemicals can cause discoloration, but they do not interfere with the operation of the terminal.

TIP For more information on chemical resistance of the product, go to http://www.rockwellautomation.com/knowledgebase and search the Knowledgebase for keywords 'Chemical Resistance PanelView Plus'.

IMPORTANT Do not operate the terminal in direct sunlight. Direct exposure to ultraviolet light can discolor the touch screen.

Clean the Display

A protective overlay can help extend the life of the terminal and make it easier to clean the display. Table 4 on page 17 provides catalog numbers for overlays.

ATTENTION: Do not use abrasive cleaners or solvents, they can damage the display. Do not scrub or use brushes.

Do not apply cleaning solution directly on the terminal's screen, the solution can drip or seep onto the gasket. Apply cleaning solution to a clean sponge or soft cloth, and gently wipe the screen to remove the dirt and grime.

To clean the display, follow these steps.

1. Disconnect power from the terminal at the power source.
2. Use a clean sponge or soft cloth with mild soap or detergent to clean the display and to prevent scratches.
3. Dry the display with a chamois or moist cellulose sponge to avoid water spots.

Remove Paint and Grease

To remove paint or grease from the bezel that is properly mounted in a NEMA, UL Type, or IP rated enclosure, follow these steps.

1. Rub lightly with isopropyl alcohol (70% concentration).
2. Use a mild soap or detergent solution to remove residue.
3. Rinse with clean water.

Equipment Wash Downs

ATTENTION: Do not use a high-pressure washer for cleaning the front bezel of the terminal. A high-pressure washer can damage the terminal.

Do not use a high-pressure washer for cleaning vented enclosures. Water can enter the enclosure and damage the terminal and other equipment.

Be aware that it is possible for screen objects to activate during equipment wash-downs if the terminal is turned on.

Ship the Terminal

If you ship the enclosure with the terminal installed, make sure the terminal is properly secured and protected against damage from impact, sharp objects, or abrasive materials.

ATTENTION: Rockwell Automation is not responsible for damage to a product that is shipped or transported while installed in a panel or enclosure.

Maintenance Mode Operations

To start the system in Maintenance Mode for diagnostics and repairs, press and hold the white box that shows in the lower left corner of the display during startup.

TIP You can also access the Maintenance Mode menu by attaching a USB keyboard and holding down the F1 key.

If an ME application is set to run at terminal startup, press and hold the white box during startup to put the terminal into Safe Mode.

Table 38 - Maintenance Mode Operations

Operation	Description
None	Exits Maintenance mode and continues with a normal restart.
Safe mode	Starts the system in Safe Operating mode. This is a diagnostic mode with reduced functionality that lets you recovery from a software anomaly. In Safe mode, you can repair offending applications or changes that caused the anomaly. **Important:** FactoryTalk View ME Station software does not run the HMI .mer application on startup if one is loaded, but instead enters Configuration mode. The HMI application runs the next time the system is reset.
Clear all data	Restores all user-accessible storage and configuration data on the terminal to its default state. The current firmware version is retained. **Important:** All storage media is returned to its original state when purchased except for the firmware. The latest FactoryTalk View ME image is retained. All user data changes or additions are lost.
Factory default	Restores all storage media on the terminal to its initial factory default state, including firmware, registry, file system, and configuration data. Typically, this option is used to recover from a failed firmware upgrade. **Important:** All storage media is returned to its original state when purchased. All user-installed, firmware updates are removed. Refer to Restore a Back-up Image on page 81 for details on how to perform a restore.

Perform maintenance operation in this order to diagnose and repair problems:

- **Safe mode** – stops an application from starting automatically.
- **Clear all data** – removes user-installed applications, user-configuration changes, and user accessible data.
- **Factory default** – returns the terminal to its out-of-box state.

Notes:

Fonts Resident on Terminal

TrueType Fonts

The table lists TrueType fonts that are pre-installed on the terminals. The default system font is Tahoma.

TIP The Arial Unicode MS font contains almost 50,000 characters. The font provides default language support for many non-Latin languages and scripts including Arabic, Hebrew, Vietnamese, Thai, Hindi (Devanagari), and other Indic languages. The font also includes Chinese, Japanese, and Korean (CJK) support.

You can load more fonts on the system by copying the font files to the \Windows\Fonts folder on the terminal desktop. To access this folder, open the My Device icon on the terminal desktop or choose Start>Programs>Windows Explorer.

IMPORTANT OpenType fonts (.otf) can contain many extra symbols and characters and can have large files sizes. If you install OpenType fonts, it can result in a reduction in available memory for applications. We recommend that you install only TryeType fonts. If you need an OpenType font, install only the font family that you want to use.

TrueType Fonts (.ttf and .ttc)

Font Type	Font Name	File Name
Latin Fonts	Arial Unicode MS version 1.01	arialuni.ttf
	Arial	
	Arial (Subset 1_30)	arial_1_30.ttf
	Arial Black	arialk.ttf
	Arial Bold	arialbd.ttf
	Arial Bold Italic	arialbi.ttf
	Arial Italic	ariali.ttf
	Comic Sans MS	
	Comic Sans MS	comic.ttf
	Comic Sans MS Bold	comicbd.ttf
	Courier New	
	Courier New (Subset 1_30)	cour_1_30.ttf
	Courier New Bold	courbd.ttf
	Courier New Bold Italic	courbi.ttf
	Courier New Italic	couri.ttf

TrueType Fonts (.ttf and .ttc) (Continued)

Font Type	Font Name	File Name
Latin Fonts	Georgia	
	Georgia	georgia.ttf
	Georgia Bold	georgiab.ttf
	Georgia Bold Italic	georgiaz.ttf
	Georgia Italic	georgiai.ttf
	Impact	impact.ttf
	Kino	kino.ttf
	Microsoft Logo	mslogo.ttf
	Symbol	symbol.ttf
	Tahoma	
	Tahoma (Subset 1_07)	tahoma_1_07.ttf
	Tahoma Bold	tahomabd.ttf
	Times New Roman	
	Times New Roman (Subset 1_30)	times_1_30.ttf
	Times New Roman Bold	timesbd.ttf
	Times New Roman Bold Italic	timesbi.ttf
	Times New Roman Italic	timesi.ttf
	Trebuchet MS	
	Trebuchet MS	trebuc.ttf
	Trebuchet MS Bold	trebucbd.ttf
	Trebuchet MS Bold Italic	trebucbi.ttf
	Trebuchet MS Italic	trebucit.ttf
	Verdana	
	Verdana	verdana.ttf
	Verdana Bold	verdanab.ttf
	Verdana Bold Italic	verdanaz.ttf
	Verdana Italic	verdanai.ttf
Symbols	Webdings	webdings.ttf
	Wingding	wingding.ttf

TrueType Fonts (.ttf and .ttc) (Continued)

Font Type	Font Name	File Name
PanelView Fonts	PV 12 x 24, PV 12 x 8	PV12x24.tff, PV12x8.ttf
	PV 16 x 24	PV16x24.ttf
	PV 18 x 16, PV 18 x 8	PV18x16.ttf, PV18x8.ttf
	PV 24 x 32	PV24x32.ttf
	PV 32 x 40, PV 32 x 64	PV32x40.ttf, PV32x64.ttf
	PV 4 x 6	PV4x6.ttf
	PV 6 x 16, PV 6 x 24, PV 6 x 8, PV 6 x 9	PV6x16.ttf, PV6x24.ttf, PV6x8.ttf, PV6x9.ttf
	PV 8 x 16, PV 8 x 20, PV 8 x 24	PV8x16.ttf, PV8x20.ttf, PV8x24.ttf
	PV Double High	PVdouble_high.ttf
	PV Double Wide	PVdouble_wide.ttf
	PV Extra Large	PVextra_large.ttf
	PV Large	PVlarge.ttf
	PV Small	PVsmall.ttf
	PV Tiny	PVtiny.ttf
	PV Very Tiny	PVvery_tiny.ttf
East Asian Fonts	Gulim version 2.21 - Korean	gulim.ttc
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